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ABSTRACT

Indexing and abstraction services in the social sciences are growing as primary sources. Results are that users become overwhelmed with the number of secondary services they use. Therefore, planning, coverage and overlap are examined in this research report with emphasis on reexamining secondary services and redefining users and users' needs. Overlap and coverage of secondary sources dealing with criminology and public administration were examined. Results showed that adequate but insufficient services are provided. Recommendations of this study are that the decision must be made whether broad or narrow coverage is to occur. It suggests that an identification be made of the material and user evaluation of services. (AP)

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The planning of indexing and abstracting services in the social sciences.
Coverage, overlap and content.

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Bath University
April 1976

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PREFACE

The research project Design of Information Systems in the Social Sciences (DISISS) was carried out between 1971 and 1975 with the support of a grant from the British Library Research and Development Department (formerly the Office for Scientific and Technical Information). The central team was based at the University of Bath, and assisted by researchers at the Polytechnic of North London School of Librarianship, and the Open University. The results of the research are reported in two series of papers. These reports can be obtained individually on loan from the British Library Lending Division, Boston Spa; a limited number are available for purchase from The Library, Bath University, Claverton Down, BATH BA2 7AY.

This report was prepared largely by Stephen Roberts under the general direction of Maurice Line and Michael Brittain, and edited by Maurice Line. All the DISISS researchers at the University of Bath, the Polytechnic of North London and the Open University were involved in one way or another with the data collection, analysis, interpretation and drafting. Mr Robert Turland of the Polytechnic of North London also assisted in data collection. The clustering of cited journal titles was carried out by Dr W. Y. Arms and Mrs C. Arms; this is discussed in DISISS Working Paper no. 11 and DISISS Reports A3 and B6.

A number of persons and libraries provided valuable assistance, including Miss Rosina Perry (Librarian, Institute of Criminology, University of Cambridge), Mr D. A. Clarke (Librarian, British Library of Political and Economic Science), Mr I. D. Shelley (Royal Institute of Public Administration), Mrs M. Railly (Librarian, Institute of Local Government Studies, University of Birmingham), Mr A. van Ginkel (International Union of Local Authorities), and Mr J. Benson (Librarian of the Joint Reference Library, Chicago - publisher of Recent publications on government problems). Librarians of the following institutions gave information on the frequency of use of secondary services in their libraries: the British Council English Teaching Information Centre, British Institute of Management, the Department of Trade, and the Department of Industry, the Institute of Historical Research of the University of London, the Royal Anthropological Institution of Great Britain and Ireland, the Royal Geographical Society, the Tavistock Institute of Human Relations, and the Royal Town Planning Institute.

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1.0 INTRODUCTION

The whole of DISISS is concerned with gathering information that is necessary or helpful to the better design of information systems and services. Inevitably, much of the research has focussed on published indexing and abstracting services, since they form at present such a large part of the formal information system. Assuming the continued existence of such services, at least for the immediately foreseeable future, several basic questions need to be asked about them:

1. How many should there be?
2. How should they relate to one another?
   - should the distribution of publications among them be planned, and if so how?
   - what, if any, should be the pattern of overlap?
3. How big (in size, breadth of coverage, and comprehensiveness) should individual services be?
4. How should they be arranged? (alphabetically, or classified? and if the latter, how?)
5. What is the desirable frequency of issue, depth of indexing, presentation, currency, etc? And how should/can these characteristics be related to one another?
6. How can cost-effectiveness be maximised?

Some guidance on 5., and on part of 3. and 4. is given by the research reported in DISISS Reports A3 and B3. Some data relevant to 6. is reported in DISISS Working Paper no.9. This report is concerned with some of the other questions.

Until now, a proliferation of abstracting and indexing services, growing at least as rapidly as primary journals, has been accepted as inevitable, if not desirable. But INFROSS[1] showed that, like other users, social scientists used only 1 or 2 secondary services - not enough, presumably, to give them adequate coverage of their subjects, but this was only a presumption, since few good studies of coverage had been undertaken in the social sciences, although there were precedents in science (Martyn and Slater, 1964; Martyn, 1967). While inadequate coverage of individual services can lead to problems for the user with limited time and motivation, as also for the library with limited acquisition funds, overlap can lead to selection problems and unnecessary expenditure for the library, and a general waste of production resources. Inappropriate allocation of primary materials between different services - by subject, form, language, or country of origin - can also give rise to problems for libraries and users, especially the latter, who have first to find out which services to use and may then have to use several. Finally, within individual services material can be arranged and organised in a variety of ways - alphabetically by subject, or classified, and if classified, broadly or closely, and by a variety of schemes.

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[1] INFROSS = Investigation into Information Requirements of the Social Sciences

The obvious answer to 'how many' services there should be would appear to be 'as few as possible', but many specialized services, provided their contents conform to the needs of defined user groups, may be preferable to a few generalized ones. It is possible that in future, with the prospect of comprehensive files of references held by computer, both general and specialized services can be produced, and if subject patterns change (as they do continually) services can be adjusted from time to time accordingly. However, this prospect makes it more rather than less necessary to try and determine desirable patterns of coverage and overlap - at least, to establish a methodology for determining desirable patterns.

The research reported here cannot, even within the limited areas studied, establish what overlap there should be between services, but it helps to show what the present situation is with regard to journal coverage and overlap, and provides some guidance as to the allocation and grouping of subject areas among secondary services.

2.0 REVIEW OF PREVIOUS RESEARCH

A summary table of relevant research is provided as Table 1.

Until comparatively recently it is fair to say that the design of secondary services, individually and as a whole, has not been approached systematically. User needs and preferences have rarely been considered, except perhaps very subjectively, and short term economic considerations and the presumed size and nature of the market have been the chief factors deciding whether or not new services should be started, what they should cover and what form they should take.

Research carried out before 1945 is confined to a few papers, notably those by Bradford (1937) and Brace (1938). The immediate post-war years produced two studies, one by Ditmas (1948) and the other by Varossieau (1949). Varossieau circulated a questionnaire to 1,000 secondary services and collected data on subject coverage, journal coverage, number of entries produced and type of abstract; more co-operation between abstracting services was proposed.

Studies appeared spasmodically during the 1950s. A study by Himwich (1954) dealt with the coverage of medical journals by 37 secondary services; a similar method (very similar to that reported here) was used by Sewell, McCann and Kelly (1956) in a study of coverage of pharmaceutical literature by medical secondary services. Papers prepared for the International Conference on Scientific Communication in 1958 by Garfield, Gaudenzi, Herner and Rigby dealt with secondary services. Table 1 gives a chronology of papers identified in the literature; the number of papers published since 1964 is considerable. The studies range over all the main subjects, although there are very few dealing with the 'humanities', within which only music and theology have received much attention. This collection of studies does not claim to be exhaustive, but presents a fair picture of the quantity and type of research carried out. By and large the research on secondary services has been non-cumulative.

TABLE 1

SELECT LIST OF THE LITERATURE RELATING TO SECONDARY BIBLIOGRAPHICAL CONTROL

A. Production aspects

Very wide range of topics reported in papers covered by reviews listed below. In particular: abstracting and indexing costs and procedures; computer modelling; data base design, preparation and management.

1970 Bourne
1971 Olson
1973 Slater

B.1. Bibliographical control

Mainly studies dealing with the actual coverage of a service or services, often by comparison with other services.

1937 Bradford - Secondary services in science
1938 Zanevald - Botany
1948 Jones - Mineralogy
1953 Ten Eick - Physiology
1954 Himwich - Medicine
1956 Sewell, McCann and Kelly - Pharmaceutics
1957 Foecking - Semi-conductor physics
1959 Sheel - Time lag and coverage in South Asia
1961 Gwirtsman - Russian chemical literature
1962 Most and Kessler - Cancer chemotherapy
1962 Roper - Medicine and biology
1964 Atherton and Yovich - Time lag in secondary journals in physics
1964 Garfield and Sher - Coverage of papers by services
1964 Keenan and Atherton - Physics
1964 Martyn and Slater - Various subjects
1964 Orr, Pings and Leeds - Biomedicine
1964 Rajagopalan - Indian physics literature
1965 Bourne - Agriculture
1965 Rajagopalan - Indian mathematics literature
1965 Rajagopalan - Indian agricultural literature
1965 Shilling and Benton - Drug science
1965 Valenti and Ronchi - Information science
1966 Gilchrist - Information science
1966 Pings - Nursing
1966 Tanabe and Takamaro - Japanese nuclear science
1967 Atherton and Greer - Chemistry and physics

TABLE 1 (cont.)

1967 ICSU/AB - Physics
1967 Martyn - Various scientific subjects
1967 Sakai - Chemistry
1968 Amsden - Anthropology
1968 Halaszi - Netherlands agriculture
1968 ICSU/AB - Physics in *Bulletin Signalétique*
1968 Keenan and Brickwedde - Physics
1969 Bourne - *Bibliography of Agriculture*
1969 Dews and Ford - Management
1969 Elliott - Psychology
1971 Meltzer - Industrial psychology
1971 Roberts - Economics literature
1972 Buntrock - Agriculture and rural sociology
1972 Houghton and Rowland - Engineering
1972 Kennedy, and 1972 Wood - *BIOSIS/CAS/Ei* coverage and overlap
1973 Kiehlmann - Chemistry
1973 Bottle - Secondary services and bibliometric studies
1973 Brockway - Theology
1973 Dansey - Information science
1973 Flanagan - BIOSIS/CAS/Ei
1973 Montgomery - Toxicology
1973 Orna - Manpower studies
1974 Thorpe - Rheumatology

B.2. Retrieval characteristics of secondary data bases

Mainly studies of the retrieval performance of a service, usually by comparing it against a test bibliography or other corpus of citations.

1959 Gaudenzi - Metallurgy
1959 Lykoudis - Literature searching technique
1962 Orr and Crouse - Cardiovascular research
1964 Borgstrom and Paris - Food technology
1964 Martyn and Slater - Various subjects
1964 Ruhl and Sokoloff - Rheumatology
1966 Narinesin - Biology
1966 Riley - Protein chemistry
1967 Clague - Mechanical engineering
1967 Martyn - Various subjects
1968 O'Connor and Meadows - Astronomy

TABLE 1 (cont.)

1969 Littleton - Agricultural economics
1970 Virgo - Opthalmology
1971 Lancaster - Methods of evaluation
1971 Thompson - Education
1971 Wood and Bower - Earth sciences
1972 Thorpe - Rheumatology in Index Medicus
1972 Ultee and Riesthuis - Netherlands sociology
1973 Dansey - Information science
1973 Guy - Sociology of leisure
1973 Kiehlmann - Chemistry
1973 Orna - Manpower studies
1973 Presanis and Brookes - Engineering
1974 Aiyepeku - Geography
1974 Thorpe - Rheumatology
1974 Verheijen-Voogd and Mathijsen - Medicine

C. Descriptive studies, bibliography and bibliographical organization

Mainly studies of bibliographical organization and descriptive subject bibliography. Often dealing with limitations of existing services.

1938 Brace - Secondary services in general
1949 Varoisseau - Secondary services in general
1954 Clapp - Secondary services in general
1955 Glass - Biology
1955 Louttit - Psychological Abstracts
1955 Neelameghan - Medicine
1959 Collison - Secondary services in general
1961 Niwa - Physics and mathematics
1962 Chorherr - Nuclear energy
1962 Most and Kessler - Cancer chemotherapy
1965 Andry - Criminology
1966 Parkins - Biology (BIOSIS)
1966 Siegmann and Griffiths - Psychological Abstracts
1967 Downs and Jenkins - Surveys of different subjects
1967 Thompson - Linguistics
1968 Adams and Baker - Mission v. discipline orientation
1968 Klempner - Diffusion of information via secondary services
1968 Routh - Anthropology
1969 Cooper and Terry - Physics

TABLE 1 (cont.)

1969 Edwards - *Library and Information Science Abstracts*
1970 Goil - Social sciences
1971 Aiyepeku - Geography
1971 Collison - Historical development of services
1971 Thompson - Education
1973 Backhouse - Planning and transportation
1973 Cawkell - *Social Science Citation Index*
1974 Heine - Bibliographical control of secondary services

D. *Evaluation and experimental services; user and use studies*

1949 Varoisseau - Secondary services in general
1950 Bonn - Usefulness of different services
1959 Herner - Quality of subject abstracts
1959 Smith - User evaluation in physical sciences and engineering
1965 Bottle - Evaluation of current awareness services
1965 Urquhart - Physics abstracting
1966 Pings - Nursing
1968 Klempner - Diffusion of information via secondary services
1968 Slater - *Analytical Abstracts*
1969 King - Psychology
1970 Keenan - Use and user education
1971 Lancaster - Methods of evaluation
1971 Ring - *Index to Dental Literature*
1972 Barker, Wyatt and Veal - Current awareness in chemistry
1972 Fry - ERIC services
1973a Bath University - Evaluation of current awareness service in local government
1973b Bath University - Analysis of query answering service
1973 Leggate - SDI service in biology
1974 Bath University - Experimental Information Service for Planners
1974 Lynch - Mechanized services: scope

E. *Policy issues; design studies; etc*.

Information policies and secondary services. Forward planning and development. Some studies draw on results of empirical research.

1948 Ditmas - General survey of services
1959 Frank - Economic affairs in Netherland

TABLE 1 (cont.)

1959	Kingsley - American history
1963	National Federation of Science Abstracting and Indexing Services 'Heller Report' - Cooperation and coordination
1964	Keller - Alchohol literature
1965	Andry - Criminology
1965	Boehm - Social sciences
1965	Whatley - Librarianship and information science
1966	Pings - Nursing
1966	System Development Corporation - Secondary services in the USA
1967	Downs and Jenkins - Surveys of different subjects
1968	Adams and Baker - Mission vs. discipline orientation
1968	Amsden - Anthropology
1970	Buntrock - Agriculture
1970	Goil - Social sciences
1970	ICSU/AB - World-wide science abstracting system
1970	Pritchard - Management of secondary control
1972	Edwards - Librarianship and information science
1972	Roberts - Desiderata for control in social sciences
1973	COBI Project - Forecast of trends and requirements
1973	Flanagan - BIOSIS/CAS/Ei overlap and coverage
1973	National Federation of Abstracting and Indexing Services - Development of services and problems
1974	FID - Duplication of services
1974	Lynch - Network development. Computerized services.

At least six different types of study can be identified. The first group of studies (A) can be called production studies, and deals with abstracting and indexing rates and costs, procedures, computer modelling and, increasingly, with data base design, preparation, and management. This review does not deal with studies in this category; many are case studies of individual services, and from a theoretical point of view they are usually of limited value. Next come bibliographical control studies (B1 and B2), dealing with coverage and overlap of journals and articles, depth of article coverage and time lag in entry. Various methods of investigation are applicable to such studies of bibliographical control (coverage and overlap of journal titles (B1), coverage of a bibliography (B2), etc.). Studies which used an evaluation of retrieval performance to compare two or more services could well be considered either as type (B1) or (B2). Secondary services are dealt with in descriptive studies of subject bibliography (C), and whilst not contributing a great deal to the understanding of processes, they help to clarify the morphology of bibliographical organization. User evaluation studies, studies of use and user needs, and experimental services form the fourth group (D); these may contain an element of retrieval evaluation (B)? but also evaluate user preferences and estimates of benefits, etc. In one advanced form, evaluation is carried out on an experimental secondary service (such as the Experimental Information Service for Planners (EISP[1])). Finally there are studies (E) concerned with information policies which contain an element of description (C), and may make reference to empirical studies to support their case.

One way to assess the current effectiveness of bibliographical control in the social sciences is to examine the main findings of some recent research studies. Studies by Andry (1965), Amsden (1968), Elliott (1969), Dews and Ford (1969), Goil (1970), Roberts (1971), Thompson (1971), Ultee (1972), Ward (1972), Guy (1973), Orna (1973), and Clinch (1974) are relevant.

In November 1964 an invitation conference on documentation in criminology was held by Aslib. A paper was presented by Andry (1965) on existing documentation services in criminology and future needs, very little of the discussion reported dealt with secondary services, and Excerpta Criminologica (now Abstracts on Criminology and Penology) received only a passing mention. No proposal was made to investigate secondary services, and there was no systematic discussion of the problems of bibliographical control, although more details were given of the bibliographical organization of the subject. At the same conference Lewis (1965) presented a paper on documentation services in general in the social sciences which gave a more systematic treatment; it was noted that abstracting services were not numerous and that there tended to be a high mortality rate. A major reason for the shortage of abstracting services was the expense involved and the collection and retention of a suitable staff of abstractors. Excerpta Criminologica was mentioned as one of the more successful and established services. Lewis's final comment on secondary services is worth quotation: 'the present situation is one in which it is frequent for individual libraries to provide good and fast abstracting services for their particular clientele, but in which it is not easy to establish co-operative or comprehensive services on a wider scale for the various strata of potential users'. No mention was made as to whether any analytical studies of services were then being carried out. The conclusion could be drawn from Andry and Lewis that the situation in the social sciences and criminology was not very satisfactory, and that there seemed to be few clear schemes or ideas on how to improve it which would have some form of success. By contrast, the survey of criminology documentation by Wright (1974) seems more hopeful, and confirms the view gained by the present research that there have been substantial improvements in the last 10 years. At the same 1964 conference a paper was given on the potential uses of mechanized and computer based documentation in criminology (Tapper, 1965).

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[1] See DISISS Report B3 (Bath University, 1974)

Studies of coverage by secondary services of items in selected bibliographies have been reported by Martyn and Slater (1964) and Martyn (1967). One of the tests involved the coverage by Psychological Abstracts of items in a bibliography on motivation research. 80% of items were covered by PA. No other secondary service was tested against the bibliography. The tests carried out by Martyn and Slater dealt with the coverage and overlap of articles, and not journal titles, as in the case of DISISS. Ideally, the studies of journal coverage and overlap carried out by DISISS should be supplemented by studies like those done by Martyn and Slater (but see below, 2.6.5 and 2.7.5).

A review of documentation and information problems in anthropology was reported by Amsden (1968). Amsden found that there were few good services comparable to the best in other disciplines for either retrospective or current access to the literature. For retrospective access the Harvard University Peabody Museum catalogue (published by G. K. Hall) and the Yale-based Human Relations Area Files were commended, although actual use of the services was low (only 29% of respondents surveyed made use of the Harvard catalogue). No current general indexing or abstracting service was available for anthropology and an analysis of indexing services available indicated a worsening situation. The sections on indexing services in the 1963 and 1966 Ulrich directories were compared, to observe which services covered the journals listed in the other parts of Ulrich relevant to archaeology. In 1963, there were 208 journals; of these 30 were covered, in a total of 44 mentions, in 14 services. In 1966 the number of journals had increased by 27%, to 264; of these, 39 were covered, in 76 mentions, in 24 indexes. Amsden concluded that the bulk of indexing of anthropology periodicals was done for the benefit of other disciplines; services covering the anthropology periodicals included Catholic Periodicals Index, Nutrition Abstracts and Reviews, Chemical Abstracts, Music Index and Applied Science and Technology Index. Amsden's studies confirmed the view of the survey by Appel and Gurr(1964) of low use of secondary tools; at the time it was reported that 89% of respondents were unaware of the UNESCO International Bibliographies of the Social Sciences. Current awareness facilities in anthropology were limited although there was considerable interest in mechanized services. 'Current Contents'-type services were suggested as possibilities for the future. Amsden concluded that more reviews were required, and that a prompt cumulative comprehensive indexing and abstracting service was required which covered maps, films and government publications as well as journals and monographs. To date anthropologists are still without a discipline orientated secondary service specially devoted to their needs.

The documentation problems of psychology have received more attention than those of most other subjects. Secondary services have received consideration from Loutitt (1955), Osgood and Xhignesse (1963), Siegman and Griffith (1966) and in the studies conducted under the PSIEP programme (Project for Scientific Information Exchange in Psychology) (American

Psychological Association, 1965) . Psychological Abstracts first appeared in 1927, and has pioneered computer-based bibliographical control in the social sciences; in its field PA is almost unrivalled, and there has not been quite the proliferation of documentation services in general psychology as in other fields, although related services in specialized areas have developed (Language and Language Behavior Abstracts, Mental Retardation Abstracts; Epilepsy Abstracts; Excerpta Medica section 32 - Psychiatry). In the field of general psychology secondary services, Elliott compared Psychological Abstracts and Bulletin Signalétique: section 20 for coverage, number and subject distribution of abstracts and delay; PA was found superior to BS in all respects, but the latter could complement the former in coverage of European journals in medicine, the humanities and ornithology. (Elliott, 1969). When the study was undertaken in 1965 PA covered 650 journals as against 190 by BS.

Lewis (1965) observed that law, and management and business were two areas in which secondary services had shown somewhat more satisfactory development, largely because of the stimulus of practitioner requirements in these subjects for efficient information service. In 1969 Dews and Ford published a comprehensive study - one of the first of its kind - of existing documentation services in management. The stimulus for the study lay in the suggestion that a new service was required, but in view of the large number of existing services which had considerable overlap, a detailed survey was indicated to see whether more intensive use of them would satisfy the need. On examination of 51 services, the following conclusions were drawn: no single service provided adequate subject coverage for literature relevant to management ; there were too many services to search; British publications were badly covered, particularly in marketing, production and labour relations; statistical and ephemeral news items were difficult to trace; time lag in entry was often greater than the tolerable average of up to 6 months; indexing was poor, making retrospective searching difficult; and a comprehensive service for management studies might be required to cover the UK literature.

The coverage of primary journals by the secondary services was studied, using the method of analysis followed earlier by Himwich (1954) and similar to that chosen by the present study. An estimate of the number of relevant primary journals was assessed, using Ulrich as a basis;

between them 43 services covered 47% of the serial titles and this compared unfavourably with a value of 61% for medicine (Himwich 1954). A pattern of neglect of certain areas and titles was found, together with duplication in other areas of the supposedly more important journals; little evidence of co-operation in planning coverage was found. The coverage of UK material was better than that of USA material, but this reflects the bias of *Ulrich* in covering local and fringe material. The proportion of unique coverage of certain journals by services was fairly high (cf. the results for criminology and public administration Tables 7 and 11). When the most frequently covered journals were compared with a list of most frequently used journals there was considerable dissimilarity, indicating that the services were not entirely suited to British needs. Article coverage was also tested by using a sample of most frequently read journals. Indexing of British material was incomplete, but this might reflect the low level of relevance of the material for indexing: levels of duplication of article coverage were not unduly high, but American services had to be relied upon for coverage of much British material.

In general a rather inefficient pattern of services existed in management in 1969, although in selected areas a reasonably good coverage of journals and articles was offered to the user. No plan was proposed for improving coverage or services but suggestions for further work were made. One area in which a choice would have to be made was whether to create new services or to base developments on existing ones. Since 1969 there have been piecemeal improvements in bibliographical control.

A survey of the main secondary services in the social sciences was carried out by Goil (1970), and although no empirical studies of coverage were attempted suggestions for improvement of services were made. Goil concluded that a number of services were international in status, but there were wide variations in coverage. In 1969 *World Agricultural Economics and Rural Sociology Abstracts* covered journals in 142 countries; the *IBSS* (*International Bibliography of the Social Sciences*) in 1966 covered 118 countries for political science and 119 for economics; *Population Index* covered 81 countries in 1969; *Asian Social Science Bibliography* and *Journal of Asian Studies* covered 18 and 27 countries respectively. On subject coverage the effectiveness of services seemed in doubt, entries to IBSS between 1952 and 1966 did not reflect the growth in the literature of economics taking place during the period (Fletcher, 1972, DISISS Report A2, sections 2.3.3 and 4.1). Goil saw a role for the various committees of the ICSSID (International Committee for Social Science Information and Documentation) in promoting national and international control; national social science research bodies, he thought, should take a more active role in documentation. At the moment this trend is not developing for a number of good reasons, e.g. lack of resources, lack of policy information and feeling in some quarters that such centralisation would produce no greater benefits. A division of coverage was proposed - international bibliographies to deal mainly with the research literature, and journals with more than quarterly frequency to be covered by national services. The need to control the unpublished and semi-published literature was also considered, and also the problem of language barriers.

The variation in levels of bibliographical control is illustrated by Roberts' study of current control of journal literature in economics in the UK (Roberts, 1971); much of the assessment of effectiveness depends on the criteria chosen. Roberts found that services in economics were ranked quite differently with respect to journal title coverage, depth of article coverage in an issue of a primary journal, coverage of a bibliography of references (literature coverage) and time lag. The best overall contribution to control was given by the simplest level of service (contents listing) in Economic Journal, which however does not attempt systematic subject control. The commercial services failed, however, to establish an acceptable level of subject control - Roberts concluded that the current control system was one of 'signal ineffectiveness'. Unlike the situation in management, where the coverage of British material by non-British services seemed to be acceptable (Dews and Ford, 1969), there appeared in economics to be no question of leaving control to foreign services; the British Humanities Index was suggested as a basis for improved current control.

The study by Thompson (1971) reviewed the situation in economics and management, as well as giving a detailed examination of the coverage of 12 services using 88 documents in education generated from the ILO-ISIS data base. The main problems identified concerned costs, time lags, proliferation of services, duplication and overlap; in addition it was noted that very few services circulated to more than 1000 subscribers world wide. Thompson's main conclusions were, that there is a continuing need for printed services, but based on machine files; that formalized controlled thesauri will give way to natural language for retrieval; and that there appear to be four types of entry which could form machine records - a basic reference with few descriptors, brief abstracts or PRECIS statements, information abstracts, and 'elite' abstracts of the type used by CIRF Abstracts.

A study of the development of International Political Science Abstracts (IPSA) by Ward (1972) showed that the number of entries had grown from 1446 in 1950, to 2206 in 1970; journal coverage had grown from 84 titles in 1951, to 127 in 1960, and 355 in 1970; the number of journals abstracted in full was much less; only 12 out of the 127 in 1960. Expanded journal coverage was accompanied by wider geographical coverage. Coverage data was compared with the rank list of journals cited obtained by the study of citations in political science by Steward (1970) and this showed that in 1970, all but one of the top 20 cited titles were covered by IPSA.

The coverage of Dutch sociology literature by seven documentation services was reported in a study by Ultee and Riesthuis (1972). A bibliography of 389 publications (journal articles, reports, monographs) recorded in 1967 was used as a base for the study. Between them the services covered 83% of the references in the bibliography; the maximum coverage of any one service was 58% (Sociologisch Instituut van de Rijksuniveriteit te Utrecht fiche service). Overlap was also studied in detail.

The compilation of a bibliography on the sociology of leisure (Guy 1972) gave an opportunity to study the coverage, overlap and currency of references on the topic in the IBSS (Sociology) and Sociological Abstracts; the journal citation patterns and growth of literature in this relatively new sub-field were also identified. Altogether 668 references, originating in 325 primary journals, were discovered in the two services. Only 47 titles were covered by both services. Thus nearly 66% of titles cited in Sociological Abstracts were not covered in IBSS. It was discovered that material in IBSS was no more than two years older than the date of publication of the bibliography; but in SA material up to ten years prior to the date of publication was included. No core journals were identified in the study.

Regazzi (1973) studied the duplication in coverage of secondary services covering religion and theology; 12 services originating in the USA and 4 from elsewhere were studied. Almost all foreign titles covered by the US services were duplicated in the international indexes, and the converse was also true. Less than half of the titles covered by 13 of the 16 examined services are unique to any one service. Lack of co-ordination amongst the secondary literature was evident; the high duplication (overlap) rates reported suggest that the services have never formulated precise goals for themselves, nor have attempted to allocate responsibilities among themselves. Regazzi believes that specialization and centralization could result in more efficient and effective service. Similar conclusions are drawn by Brockway (1973) in a study of subject indexing of articles in religions and theological secondary services.

An unpublished study by Orna (1974) produced some useful evidence on the effectiveness of secondary services in the fields of manpower studies. She studied the coverage of articles in a sample taken from 10 primary journals; none of the 4 secondary services examined gave complete coverage of relevant articles. International Labour Documentation gave the best coverage.

A recent seminar on information services for social welfare reviewed the relevant secondary literature (Sheffield University, 1974). Because the subject is a wide ranging one with a strong practitioner element, and because no effective controls exist, users have a choice of - or rather, find it necessary to rely on - many services: both major services (Sociological Abstracts, Psychological Abstracts, Child Development Abstracts, Abstracts for Social Workers (all from the USA)) and more localized indexing services produced specially by organizations in the UK are available. Such special services have the advantage that they can be tailored to local needs, but much duplication of effort is involved in their production.

This review of the developing situation in the social sciences, especially if compared with activity in science and technology suggests that the present level of current and retrospective control is seriously inadequate. The studies of bibliographical control in criminology and public administration reported in the following pages illustrate a situation which is probably typical of all the social sciences.

3.0 THE APPROACH TO STUDYING COVERAGE AND OVERLAP OF SECONDARY SERVICES

3.1 Problems of studying coverage and overlap

Coverage and overlap can be examined from an existing situation, but the interpretation of results will be limited unless coverage can be compared with some 'ideal' coverage. The mere concept of an 'ideal' coverage begs several questions. In the first place, it presupposes a coherent subject to be covered, or at least an identifiable set of potential users. Nevertheless, in order to cost coverage at all, a list of materials that might be covered is needed, so that the issue cannot be shirked.

The potential coverage of a secondary service can be defined as

(i) All items that might be classified as belonging to the subject area in a general classification scheme, i.e. excluding relevant items in other subjects, however closely related - this would presuppose substantial regular use by persons in the subject area of other secondary services

(ii) All items of direct and clear relevance to the subject area - this raises questions as to 'relevance', and the inclusiveness assumes much overlap with other secondary services

(iii) All items of potential relevance, i.e. a very inclusive collection of items. The problem here is how to identify such items, at least unless and until there is a huge multi-faceted data base on which to draw. There would be vast overlap with other services.

More practically, a secondary service can cover

(i) All journals known or believed to contain relevant material - obviously some items will be missed in this way, unless other secondary services are scanned to pick up relevant items from other primary journals; or

(ii) the 'core' journals in the subject area, perhaps with the addition of such other items as can be identified without excessive effort.

To test the actual coverage of a secondary service, some base list indicating potential coverage is required. Ideally, the base should be a list of articles and other items; a comprehensive bibliography of a certain aspect of the subject, if one exists, can sometimes provide such a base (see Martyn and Slater 1964, and Martyn 1967). Alternatively, and less satisfactorily, a list of journals can be used. This will necessarily exclude monographs, reports, theses, conference proceedings and other forms of material; and it is not easy to construct a valid list of journals. Lists can be drawn from 'comprehensive' files of serial titles such as CLOSSS and Ulrich - and here the problem of identifying relevant titles arises; or they can be constructed from all the primary journals covered by all the secondary services, in which case the list may be either too inclusive or too exclusive.

In the present study, with its emphasis on journal, rather than article, coverage and overlap, the problem of locating lists of potentially relevant material against which to test actual coverage was particularly severe. Using a potential list of journals from a serials bibliography - CLOSSS would have been the natural choice for DISISS - would inevitably raise objections as to the principles of selection and coverage of material for the original bibliography, and as to the selection of titles for the comparison. These are valid objections which could make the results of any coverage comparisons somewhat suspect. Some objections could be overcome by repeating the tests on a number of potential universes of titles but the problem of discriminating between different sets of results would remain. It was decided not to undertake tests of this kind for reasons of validity, length of time to carry them out within limited project resources, and the low expected pay-off.

Lists of journals generated by citation analyses are an alternative for testing potential coverage. One such list resulting from the analysis of citations in criminology journals was available to DISISS, and the comparisons made are discussed below. In effect, the present study has had to use as a test of coverage the coverage of any particular service against either the total primary journal coverage of all secondary services, or the particular coverage of any other individual service. Within the limits of the method of study chosen, with its emphasis on primary journal coverage rather than article or item coverage, useful indicative results have been obtained, which are especially suited to comparisons with journal clusters obtained from citation data.

3.2 Choice of subjects for study

The choice of two areas for investigation was determined by interest and practical considerations. The characteristics required were that the field should not be too broad, that it should not be too self-contained, and that it should be of interest both to researchers and to practitioners.

Criminology exhibits all these characteristics; it is a reasonably clearly identifiable area of the social sciences, has some distinctive bibliographical services, and is related to other social sciences, especially psychology and sociology, as well as to other subjects such as medicine and law. The methodology of the study was discussed in DISISS Working Paper no. 3 (Bath University, 1972).

For the second area the choice was more difficult. Several areas were considered and rejected, such as conflict and peace research , social welfare and occupational safety. In the end public administration was chosen. Its boundaries are less clear than those of criminology, but whereas criminology is related to, and draws upon, several other areas in the social sciences, public administration falls mostly within political science. It is difficult to separate practical and academic aspects of public administration from the wider literature of politics, social sciences and public affairs. This is apparent from the analyses reported below.

The difference between the two subjects proved to be a good test of the method of study. Public administration yielded a much larger data base, but in spite of this the analyses reveal patterns of coverage, overlap and bibliographical control in an essentially similar way, so that comparison between the results is possible.

However coherent a subject area in the social sciences, and however clearly identifiable a group of potential users, it is by no means certain, indeed it is improbable, that the subject boundaries and users would be similar in all countries. Criminology is a good example of this difficulty. In Britain it tends to be fairly distinct from forensic science, and only partly concerned with police science, whereas in the United States of America and most of continental Europe criminology includes both, although there are regional variations in Europe (Scandinavia, for example, being slightly closer to the British definition). It is worth noting Radzinowicz's definition: "In its strict sense, criminology may be defined as the study of the nature of the phenomenon of crime and of the factors - individual and environmental - which may have a causal influence on, or be associated with, the emergence of criminal behaviour and the state of crime in general. This, however, should not constitute the whole subject-matter of criminology. ..... The systematic study of all the measures to be taken against crime in the spheres of prevention (direct and indirect), of legislation, of the enforcement of criminal law, of punishments and other methods of treatment, constitutes an indispensable and integral part of criminology" (Radzinowicz, 1960)

Public administration is perhaps more likely to be defined in a similar way in different countries, but political and social conditions would tend to make its practical boundaries vary a good deal. What is 'public' in one country may be 'private' in another, and what is openly discussed in one country may be regarded almost as an official secret in another.

The choice of services raises a number of problems for any comparative analyses, the main one being that in criminology the services chosen are all closely identified with the subject, whereas in public administration the services chosen include some of less than central relevance to the subject. In order to make a valid comparison between the two subjects it is necessary to confine analysis to a smaller 'core' sample of public administration services. There are four main reasons for the differences in composition of the groups of secondary services. Firstly the choice was made on the basis of asking 'What services are there that are distinctively relevant to the subject in question'; thus, although Psychological Abstracts and Sociological Abstracts contain material relevant to criminology, to include them in the study as a source of journals relevant to criminology would have biased the study away from criminology towards other subjects. Secondly, there were very few services specifically relevant to public administration, in the same way as there were in criminology. The two subjects themselves are sufficiently different in character for the differences to be reflected in their bibliographical services. Thirdly, and arising out of the second reason, the distinction between public administration and, say, political science, social welfare, planning, law, etc., is less marked than between criminology and, say, medicine and psychology. Fourthly, it is difficult to draw acceptable subject boundaries, and, without adequate criteria such as journal clusters or citation frequency data, inadvisable to attempt it.

3.3 Data collection

A list[1] of some 1,600 titles of secondary publications of all types was searched to identify all services relevant to criminology and public administration. Each was sent to a small number of experts in the fields concerned to ask for additions and to check completeness.

The final choice of secondary services for each study was largely determined by ease of access in libraries and availability through inter-library loan (in a few cases copies were donated by the publishers). The services finally chosen for analysis are marked in the lists in Appendix A. Six services were chosen for criminology and 21 for public administration.

The main data bases against which coverage was studied consisted of lists of primary journals generated collectively by analysis of the secondary services. The limitations of these as bases are recognised, but, as noted in 3.1, practical considerations made it impossible to construct a more elaborate base. Separate lists were constructed for criminology and for public administration.

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[1] Collected together by DISISS after a search of bibliographical publications and intended to supplement CLOSSS (Check List of Social Science Serials)

The lists were composed of all journal titles covered by the secondary services in 1970 - the year chosen for study. Titles were recorded on cards; on each card the secondary services covering the primary journal were recorded, and a note was made of the place of publication of each primary journal.

In some cases the secondary service provided a list of titles covered, but in the majority of cases the service itself had to be searched systematically. References to non-journal material were ignored. In the present study, recording was done manually, but in any larger study it would be more satisfactory to record items in machine readable form and analyse them by computer.

The number of journal titles in the files was 670 for criminology secondary services and 5053 for public administration. The files were kept in alphabetical order of journal title, to enable reference to be made to the particulars of any primary journal. All other orders are established by search of the data file and compilation of specific lists and tables; these operations are described in the next section.

In addition to the check against journal titles, a limited study of coverage of articles was carried out, and with it a study of time lag in entry. A sample of articles was chosen from the most frequently covered primary journals in each subject and selected secondary services were searched over the period 1970-1972 to check coverage and time lag. Further details of method are discussed in section 4.5.

3.4 Analyses carried out

(1) Coverage of journal titles.

(a) Frequency of occurrence of primary journals in the secondary literature.

The number of services abstracting or indexing each primary journal was counted and journals given a rating according to the number of secondary services in which they appeared. Each data file generated a maximum number of ratings determined by the greatest number of overlaps between secondary services. Each set of ratings was referred to as a 'coverage group'(CG) - CG 1 includes those journals covered by one service, CG 2 those covered by 2, and so on. There are gaps in the series because, for example, in public administration there is no CG 12 or CG 14, since no primary journal was covered by 12 or 14 secondary services.

(b) Coverage patterns in individual secondary services. The data files can be used to produce details on the following:

(i) number of titles covered by each service

(ii) a list of titles covered by the service (not reported in detail in this study)

(iii) a breakdown of the titles covered, by rank group - the distribution between high and low ranked journals may be used to distinguish differences between services

(iv) analysis of titles covered by language, subject, and country of origin, using bibliographical data from CLOSSS as necessary; in this particular study only country of origin was analysed

(v) primary journal titles covered by each service, as a proportion of all journals on the base files

(vi) data on the number of titles covered, for comparison with journal citation clusters. Overlap between and within clusters and the significance of gaps in coverage can be assessed. Clustering of citations from criminology journals produced limited and inconclusive results (see DISISS Report A3).

(2) Overlap in coverage of journal titles.

From the distribution of primary journal coverage, the extent to which secondary services overlap in coverage of journal titles can be calculated.

The overlap can be calculated by taking the total number of journals associated with each pair of services (A and B) and expressing the amount of overlap of A on B and B on A in number of titles or as a percentage.

(3) Proportion of primary journal articles covered by secondary services.

This analysis was designed to give an indication of the proportion of articles in any given journal that are covered by each secondary service. The study was done on a sample basis and as a result only a small amount of data was collected.

The method used was to count the proportion of articles in a sample of primary journals (covered by the service) which were abstracted or indexed in each secondary service. A sample of primary journal titles common to a number of secondary services was chosen; articles published in these journals were identified (25% sample) and the number of articles covered by each secondary service calculated by checking author indexes in the secondary services.

For each primary journal studied two measures result:

(i) the coverage of primary journal articles by a given secondary service; and

(ii) the extent to which overlap in article coverage occurs in secondary services.

(4) Time lag in entry.

The time lag in entry is calculated for the sample of articles used in the article coverage study (see (3) above).

4.0 COVERAGE AND OVERLAP OF SECONDARY SERVICES: CRIMINOLOGY

4.1 Secondary services studied

The six secondary services are listed in Table 2.

BJC and JCL are both primary journals; the former lists relevant items the latter provides abstracts. LS, BJC, and JCL cover only journal articles, the remainder cover also books, reports and official publications (it could be argued that the book review sections in BJC and JCL provide partial coverage of these categories of publication).

Two other services ostensibly concerned with criminology were: Revue de Droit Pénal et de Criminologie, which covered 7 primary journals only, and Abstracts of Bulgarian Scientific Literature: Economics and Law - Criminology section, which covered only 2. Neither of these was analysed.

More general services, such as Sociological Abstracts, would be expected to cover the literature of criminology to a greater or lesser extent, but these were not examined, on the grounds that the services specifically aimed at criminologists were more likely to be used by them, and if they provided inadequate coverage general services **will do no** better. This was supported by a test of overlap against two general services (see 4.6 below).

4.2 Coverage of journal titles by secondary services

(i) Basic coverage

670 primary journals in all were covered by the 6 services studied. Two titles were covered by all 6 secondary services, 7 by 5, 13 by 4, 31 by 3, 86 by 2, and 531 by one only. There were thus 6 'coverage groups'. This information is summarized in Table 3 and lists of the primary journals in each coverage group are given in Appendix B.

The two most frequently covered journals in 1970 were the Revue Internationale de Police Criminelle and the Revue Internationale de Criminologie et de Police Technique; neither of these is an academic research journal. The journals in coverage groups five and four include most of the specifically mainstream research literature of criminology. Coverage group three also contains many of the journals recognized as important in the field, e.g. Acta Criminologica, Howard Journal, Issues in

TABLE 2

CHARACTERISTICS OF SECONDARY SERVICES IN CRIMINOLOGY

Title (In order of number of journals covered)	County of origin	Publisher and/or sponsor	Starting date etc	No. of issues in 1970	No. of journals covered in 1970	No. of entries in 1970	Primary or secondary journal	Titles or abstracts
1. Abstracts on Criminology and Penology (ACP)	Netherlands	Published by Kluwer (Deventer) for the Criminologica Foundation of the Netherlands	1961 until 1968, published as Excerpta Criminologica	6	274	2,459	Secondary	Abstracts
2. Crime and Delinquency Abstracts (CDA)	USA	USGPO	1963; 1963-65, published as International Bibliography on Crime & Delinquency; ceased publication 1972	1 + supplement (These figures relate to 1969: no issue was published in 1970)	214	c 2,140	Secondary	Abstracts
3. Liste Semestrielle d'Articles Selectionnés: Supplément aux numéros de la Revue Internationale de Police Criminelle (LS)	France	Interpol	1950; until 1967, published as Liste Trimestrielle	2	196	2,812	Supplement to primary	Titles (journal articles only)
4. Crime and Delinquency Literature (CDL)	USA	US National Committee on Crime and Delinquency	1969	6	90		Secondary	Abstracts
5. British Journal of Criminology (BJC)	UK	Published by Stevens & Sons (London) for Institute for the Study and Treatment of Delinquency	1950	4	86	423	Primary	Titles (journal articles only)
6. Journal of Criminal Law, Criminology and Police Science (JCL)	USA	Williams & Wilkins (Baltimore)	1910; in 1971, split into Journal of Police Science and Administration (which still contains abstracts) and Journal of Criminal Law and Criminology (which does not)	4	32	259	Primary (section entitles 'Police Science Technical Abstracts & Notes')	Abstracts (journal articles only)

Criminology, and Nederlands Tijdschrift voor Criminologie, but is also contains some practitioner journals, some non-criminology journals (American Sociological Review, Social Forces), and some of mainly national interest. These four groups contain between them 8% of the journal titles; journal titles covered twice or once only amounted to 13% and 79% respectively. Thus the vast majority of journals were covered by only one service.

TABLE 3

FREQUENCY OF COVERAGE OF PRIMARY JOURNALS
BY SECONDARY SERVICES IN CRIMINOLOGY

Coverage group (Frequency of coverage)	Cumulative no. of titles	Cumulative percentage	No. of titles	%
6	2	0.3	2	0.3
5	9	1.3	7	1.0
4	22	3.1	13	1.9
3	53	7.9	31	4.6
2	139	20.7	86	12.8
1	670	100	531	79.3

JCL is concerned mainly with forensic science and police matters, leaving five services which would be expexted to deal with the research literature of criminology, although LS has an understandable bias towards police science. However, a look at the journals covered by fewer than four services shows that several significant journals are not covered by one or more of these four main services - examples are Acta Criminologica, Howard Journal, Issues in Criminology, Journal of Correctional Education, Australian and New Zealand Journal of Criminology, Delinquency and Society, International Review of Criminal Policy, Australian Journal of Forensic Sciences and Correctional Psychologist.

This primary analysis of coverage shows that the number of widely covered journals is proportionately very small, and that many of the journals covered are on the periphery of criminology. Quite a number of journals from sociology, education, psychiatry and psychology are found from rank group four downwards. LS, CDA and ACP account for the main coverage of primary journals, and in addition to the main criminology and non-criminology journals cover also peripheral journals and journals of local interest (some of the latter clearly within criminology). No service specifically covers all the criminological aspects of law and recourse to the legal secondary services is therefore necessary; the same may well be true of the sociological, psychological and educational aspects of criminology. LS is probably close to comprehensive coverage of the main police literature, and for strictly criminological journals ACP comes nearest to comprehensive coverage.

(ii) Ranking of secondary services by journal coverage

In Table 4 the eight criminology secondary services are ranked according to their coverage of those primary journals covered by three or more services. The complete matrix of primary journals by secondary services is given in Table 5.

As will be seen, the rank order of secondary services for total number of titles covered is slightly different from that for the proportion of the 53 most frequently covered titles, BJC moving from fifth in the former order to third in the latter. Both ACP and CDA covered a greater number of the 53 most frequently covered journals, and their overall superiority in 1970 looked unchallengeable. Since then CDA has ceased publication, and the equivalent service published in the USA (Crime and Delinquency Literature) covers far fewer journals in total, and indeed far fewer of the 53 most frequently covered titles.

(iii) Distribution of journals covered by each service, according to extent of total coverage

The distribution of coverage by coverage group for each service is given in Table 6, which shows, for example, how many of the journals covered by a given service are uniquely covered, how many widely covered, etc. (% of figures in column A). All the services show a similar pattern of scatter across the coverage groups, with a greater or lesser proportion of once-covered journals, ranging from between 44% and 71% of total coverage. The fairly long 'tail' of once-covered journals indicates that the literature of interest to criminologists is widely scattered; while the small number of

TABLE 4

CRIMINOLOGY SECONDARY SERVICES RANKED ACCORDING TO COVERAGE OF PRIMARY JOURNALS

Service	A Total no. of journals covered	B Rank by total no. of titles covered	C Number of titles covered 3 or more times (n = 53)	D Rank by coverage of 'top 53'	E 'Top 53' (C) / All journals (A) %	F % of 'top 53' titles covered
ACP	274	1	48	1	17.5	90.6
CDA	214	2	44	2	20.5	83.0
LS	196	3	30	4	15.3	56.6
CDL	90	4	28	5	31.1	52.8
BJC	86	5	31	3	36.0	36.0
JCL	32	6	11	6	34.4	20.7

TABLE 5

COVERAGE OF INDIVIDUAL JOURNALS BY
CRIMINOLOGY SECONDARY SERVICES

No. of secondary services covering each journal		LS	JCL	CDL	CDA	BJC	ACP
6	Revue Inter. de Criminol. et de Police Technique	X	X	X	X	X	X
	Revue Int. de Police Criminelle	X	X	X	X	X	X
5	American Journal of Correction	X		X	X	X	X
	Crime and Delinquency	X		X	X	X	X
	Journal of Research in Crime and Delinquency	X		X	X	X	X
	Medicine, Science and the Law	X	X	X	X		X
	Police	X	X	X	X		X
	Police Journal	X	X	X	X		X
	Revue de Droit Pénal et de Criminologie	X		X	X	X	X
4	American Bar Association Journal		X	X	X		X
	American Journal of Psychiatry			X	X	X	X
	Archiv für Kriminologie	X	X		X		X
	British Journal of Criminology	X		X	X		X
	Canadian Journal of Correction	X			X	X	X
	Community Schools Gazette			X	X	X	X
	Criminal Law Review (London)			X	X	X	X
	FBI Law Enforcement Bulletin	X	X		X		X
	Federal Probation			X	X	X	X
	J. of Criminal Law, Criminol. and Police Science	X			X	X	X
	Rassegna di Studi Penitenziari	X			X	X	X
	Revue de Sci. Crimin. et de Droit Pénal Comparé	X			X	X	X
	University of Chicago Law Review			X	X	X	X
3	Acta Criminologica	X		X			X
	Addictions			X		X	X
	American Journal of Orthopsychiatry				X	X	X
	American Sociological Review			X		X	X
	Annales Internationales de Criminologie	X			X		X
	British Journal of Addictions				X	X	X
	British Journal of Psychiatry			X		X	X
	California Youth Authority			X	X		X
	Children				X	X	X
	Criminal Law Bulletin		X	X	X		
	Criminologist	X	X				X
	Howard J. of Penol. and Crime Prevention				X	X	X
	International Journal of the Addictions			X		X	X
	Issues in Criminology	X			X		X
	Journal of Correctional Education			X	X		X
	Law and Order		X	X	X		
	Monats. f. Kriminol. u. Strafrechtsreform	X			X		X
	Nederlands Tijdschrift voor Criminologie	X			X		X
	Police Chief	X		X	X		
	Prison Service Journal				X	X	X
	Probation	X				X	X
	Quaderni di Criminologia Clinica	X			X		X
	Recueil de Droit Pénal	X			X		X
	Revista de Estudios de Penitenciarios	X			X		X
	Revue Abolitionniste				X	X	X
	Security Gazette	X				X	X
	Social Forces				X	X	X
	Tijdschrift voor Strafrecht	X			X		X
	Wisconsin Law Review			X	X	X	
	Yale Law Journal			X	X	X	
	Zeit. f. d. gesamte Strafrechtswiss.	X				X	X
	TOTAL:	30	11	28	44	31	48

Journals covered by fewer than 3 services are not listed

TABLE 6

COVERAGE OF JOURNALS BY CRIMINOLOGY SECONDARY SERVICES
ACCORDING TO 'COVERAGE GROUP'

Service	(A) Number of titles covered	Titles covered by 1-6 services																
		1			2			3			4			5			6	
		No.	% of A	% of B	No.	% of A	% of B	No.	% of A	% of B	No.	% of A	% of B	No.	% of A	% of B	No.	% of A
Titles in each 'coverage group' (B)		533			86			31			13			7			2	
ACP	274	167	61.0	31.1	61	22.3	70.9	26	9.5	83.9	13	4.7	100	7	2.6	100	2	0.4
CDA	214	127	59.4	23.8	45	21.0	52.3	22	10.3	71.0	13	6.1	100	7	3.3	100	2	0.5
LS	196	141	71.9	26.5	27	13.8	31.4	14	7.1	45.2	7	3.6	53.9	7	3.6	100	2	0.5
CDL	90	40	44.4	7.5	24	26.7	27.9	12	13.3	38.7	7	7.8	53.9	7	7.8	100	2	1.1
BJC	86	38	44.2	7.1	16	18.6	18.6	16	18.6	51.6	9	10.5	69.2	4	4.7	57.1	2	1.2
JCL	32	15	46.9	2.8	6	18.8	7.0	3	9.4	9.7	3	9.4	23.1	3	9.4	42.9	2	3.1

journals covered four or more times indicates that the common core of journals in the literature as a whole is small, and that sub-areas of criminology may be correspondingly large in importance. Forensic and police science appear as strong sub-areas; the first two have their own bibliographical controls, although they overlap a good deal with criminology (in which, as noted earlier, they are included in most parts of the world). LS and ACP have only 44 journals in common. It is worth noting that from the cluster analysis of journal titles the following subject groups were identified: criminology; legal research; police and law; medical psychology; sociology; psychotherapy; social work; and clinical psychology.

(iv) Proportion of journals in each coverage group covered by each service

The total number of journals in each coverage group is compared with the number covered by each service, also in Table 6. While the previous section was mainly of interest from the point of view of journals covered once only, this part of the table (% of row B) is in the higher coverage groups. There were 7 journals covered by 5 services; only BJC and JCL failed to cover them all.

Of the 13 journals covered by 4 services, only ACP and CDA covered them all. In the group of journals covered by 3 services, a group containing 31 journals, the maximum was achieved by ACP with 26; the other four services covered fewer than half of the 31. Only ACP covered as many as half of those journals covered by 2 services.

(v) Geographical distribution of titles covered

The primary literature of criminology as covered by the secondary literature originates mainly in North America and Western Europe, and particularly in the USA, the UK and Federal Germany. Smaller amounts originate in France, Italy, Eastern Europe and other countries of Western Europe (Table 7). Not unexpectedly, the distribution corresponds to that of primary serials as a whole. ACP has a wide geographical coverage; in range of coverage of the Western European literature it is only matched by LS, although the actual titles covered differ, due to the latter's focus on police and forensic literature. This focus may make LS of less value to criminological researchers in the UK than ACP in spite of its similarly wide geographical coverage. Since CDA is no longer published, slightly fuller coverage of North American literature is given by the European service ACP than by the surviving US service (Crime and Delinquency

TABLE 7

GEOGRAPHICAL DISTRIBUTION OF JOURNALS COVERED BY CRIMINOLOGY SECONDARY SERVICES

Countries	ACP		BJC		CDA		CDL		JCL		LS	
	N	%	N	%	N	%	N	%	N	%	N	%
United Kingdom	31	11.3	32	37.2	12	5.6	7	7.8	5	15.6	18	9.2
France	12	4.4	2	2.3	8	3.7	1	1.1	1	3.1	29	14.8
Federal Germany	29	10.6	0	0	8	3.7	1	1.1	2	6.3	18	9.2
Netherlands	24	8.8	1	1.2	2	0.9	1	1.1	0	0	6	3.1
Italy	12	4.4	1	1.2	4	1.9	0	0	0	0	14	7.1
Other Europe	31	11.3	6	7.0	11	5.1	5	5.6	1	1.2	36	18.4
N. America	89	32.5	40	46.5	153	71.5	74	82.2	22	72.6	36	18.4
E. Europe	27	9.9	1	1.2	3	1.4	0	0	0	0	6	3.1
USSR	2	0.7	0	0	1	0.5	0	0	0	0	2	1.0
Japan	3	1.1	1	1.2	1	0.5	0	0	0	0	2	1.0
Black Africa	2	0.7	0	0	0	0	0	0	0	0	2	1.0
Southern Africa	0	0	0	0	0	0	0	0	0	0	2	1.0
Arab World	0	0	0	0	0	0	0	0	0	0	0	0
Asia	0	0	0	0	2	0.9	0	0	0	0	7	3.6
C. and S. America	6	2.2	0	0	6	2.8	0	0	0	0	11	5.6
Oceania/ Australasia	4	1.5	2	2.3	0	0	1	1.1	0	0	6	3.1
Other/ Unidentified	2	0.7	0	0	3	1.4	0	0	1	1.2	1	0.5
	274	100	86	100	214	100	90	100	32	100	196	100

Literature (CDL)). In addition, CDL covers fewer non-North American titles than CDA. Asian and Central and South American literature relevant to criminology and police science is likely to be underrepresented, although journals of more than local or regional significance are covered.

The coverage of individual services calls for little comment. BJC is an indexing service included in a primary journal and is designed for current awareness; it is biased towards English language material and concentrates almost entirely on UK and US items.

(vi) Coverage of whole subject field

The general problems of measuring coverage are considered in 1.2.1. In this study, coverage was studied mainly in terms of journal titles covered. A much more accurate measure of coverage is the number and range of items (articles etc.) covered, but coverage of journal titles is a reasonably approximate measure; a limited range of journal coverage must clearly indicate a limited coverage of relevant items, although the converse - that wide journal coverage indicates wide total coverage - is not necessarily true, since many of the journals 'covered' may be scanned very selectively and relevant items may be excluded. Even selecting journal titles against which to test coverage is far from easy.

It could be argued that the sum total of journals covered by secondary services forms a universe of relevant titles. This is a dangerous assumption, but even if it is true, some tests are still required to examine the relationship of this universe to other possible universes; this is difficult because of the varying size of different sets of titles. However, if titles in certain sets of varying size can be grouped (by frequency of coverage, citation, use, demand or judged value), it is possible to ignore the tails of the distribution and compare only the more important titles.

Criminology journals listed on CLOSSS, or in any bibliography aiming at comprehensiveness, provide one measure against which to assess secondary services. CLOSSS lists 31 criminology titles current in 1970, and Ulrich (14th edition) 195 titles under the heading 'criminology and law enforcement'. Direct comparison of journals listed in these bibliographies with journals covered by secondary services proves to be not very useful. Some way would need to be found of separating out criminology and non-criminology journals on the secondary services coverage list; even if this could be done satisfactorily the differences in size of the lists would prevent meaningful comparisons. Moreover, many journals on CLOSSS and in Ulrich which are not strictly or exclusively criminological may contain much material of relevance. An alternative test is required.

Probably the most useful practical test does not attempt to study the whole subject field but compares the occurrence of the top 22 and top 53 journals of the secondary service coverage list (i.e. those covered respectively by 5 or more services and by 4 or more services)

(a) among the 22 journals most cited by criminology source journals (the top 23 excluding Science),

(b) among all journals cited 5 times or more, and

(c) among all cited journals.

The pattern is summarized in Table 8. It is clear that there is a very significant difference between secondary journal coverage and citation coverage (Appendix F). That criminologists cite beyond criminology is expected, but their need for information in those other subjects is not and probably cannot be met by criminology secondary services. The citation evidence confirms that it is very difficult to demarcate subject boundaries in a practically useful way - that is, in a way that reflects accurately the potential coverage requirements of criminologists. This is true however the potential journal universe is defined (by citation, use or bibliographies, etc.).

In view of the importance of relating actual to potential coverage, it is unfortunate that more convincing and/or operationally useful tests are not readily possible. What the analyses do show, in a rough and ready way, is that much literature of potential relevance to criminologists is not covered by services at present designed for or aimed at them.

TABLE 8

COMPARISON OF JOURNALS COVERED BY SECONDARY SERVICES WITH JOURNALS MOST CITED BY CRIMINOLOGY SOURCE JOURNALS

Titles covered by secondary services	Number of titles in first column included in:		
	22 most cited titles (cited 13 or more times)	Titles cited 5 or more times (75 titles)	All cited titles (422 titles)
'Top 22' titles (covered by 4 or more services)	4	9	17
'Top 53' titles (covered by 3 or more services)	8	10	21

4.3 Overlap between secondary services

The extent to which secondary services overlap in their coverage of the primary literature is shown in a series of matrices (Table 5) and as overlap combinations (Table 9). All overlap figures given are reported, except where otherwise stated, as the overlap of service A on service B; for example, ACP covered 45% of the titles covered by BJC, and this is described as ACP having an overlap of 45% on BJC.

The most striking thing about the overlap figures is the very low extent of overlap between services. The highest recorded is 45% (by CDA on CDL), and 34% (by ACP on CDL). The lowest overlap figures are those by JCL - 2% on BJC, 4% on ACP, and 5% on CDA and 6% on LS, but CDL had only 6% overlap on LS, and BJC had only 6% overlap on JCL and LS.

LS clearly stands on its own, partly because of its strong European bias, partly because of its orientation towards police and forensic science.

TABLE 9

OVERLAP IN JOURNAL COVERAGE BETWEEN SECONDARY SERVICES IN CRIMINOLOGY

Service (no. of journals covered)	ACP		BJC		CDA		CDL		JCL		LS	
	n	%	n	%	n	%	n	%	n	%	n	%
ACP (274)			39	14.2	63	23.0	31	11.3	10	3.6	44	16.1
BJC (86)	39	45.3			27	31.4	17	19.8	2	2.3	12	14.0
CDA (214)	63	29.4	27	12.6			36	16.8	10	4.7	30	14.0
CDL (90)	31	34.4	17	18.9	36	40.0			7	7.8	12	13.3
JCL (72)	10	31.3	2	6.3	10	31.3	7	21.9			11	34.4
LS (196)	44	22.4	12	6.1	30	15.3	12	6.1	11	5.6		

To be read as follows: ACP covers 39 of the 86 journals covered by BJC (i.e. 45.3%)

It should be noted that the overlap figures represent maximum overlap in terms of articles covered, since none of them attempted comprehensive coverage of all the journals they covered. In view of this, the low degree of overlap is even more striking.

4.4 Performance of individual secondary services

Table 2 gives details of the main relevant characteristics of the secondary services studied. The tables of geographical distribution of journals covered (Table 7), and of coverage and overlap (Tables 6 and 9) are also referred to.

(a) Abstracts on Criminology and Penology (ACP)

ACP had the largest number of entries in 1970 (2459); it covered the largest number of primary journals (274) and the largest proportion (48 = 91%) of the 53 most frequently covered journals; the five it did not cover were either law or police journals. It was the most balanced of the services studied in the geographical distribution of the journals it covered. 61% of the titles it covered were covered by none of the other services (Table 4); this is about the same proportion as CDA (59%), but lower than the 72% of LS (as noted, these last were mostly police and forensic science journals).

The overlap of ACP on other services is shown in Table 9. The largest overlap (45%) is on BJC; the overlap on the two US services, CDL (34%) and CDA (29%) is considerably less. The low overlaps on JCL (31%) and on LS (22%) are due largely to the forensic bias of the former and the police science bias of the latter.

(b) Crime and Delinquency Abstracts (CDA)

This service ceased publication in 1972. No issues appeared in 1970, but in 1969 it covered 214 primary journals - the second largest of those studied. It had a strong North American bias. It covered 43 (81%) of the 53 most frequently covered journals; these titles accounted for one fifth of its total coverage. The overlap on the other services is shown in Table 9. On CDL it had an overlap of 40% and on the other US service, JCL, an overlap of 31%.

(c) Liste Semestrielle d'Articles Selectionnés (LS)

This was the third largest service in coverage of journals - altogether 196 titles in 1970. It had a strong bias towards European literature - 62% of the titles it covered were published in Europe (15% in France) - and poor coverage of North American titles (18%). Coverage of the most significant titles (defined in terms of coverage by secondary services) was considerably lower than either CDA or ACP. Some 72% of journals covered by LS were covered by no other service (Table 9). The greatest amount of overlap by LS on another service was on JCL (34%), but this is expected from the two main police and forensic science services. LS's overlap on the services of roughly equivalent size (CDA, ACP) was low (14% and 16% respectively). This suggests that the bibliographical control of the police and forensic literature is relatively separate from that of 'core' criminology.

(d) Crime and Delinquency Literature (CDL)

This service is now (1974) the main American-based secondary service in the field, although its coverage amounted only to 90 titles in 1970. CDL covered 53% of the 53 most frequently covered titles, and these represented 31% of its total coverage; slightly less than the proportion covered by BJC, which is comparable in scale of coverage to CDL. 44% of its titles were covered by no other service. The highest degree of overlap was 22% on JCL, and the lowest 6% on LS. The North American bias was very strong: 82% of all journals covered were US or Canadian.

(e) British Journal of Criminology (BJC)

For an indexing service contained in a primary journal and designed mainly for current awareness BJC covers a reasonable number of journals. It covered 31 of the 53 most frequently covered journals; the main exceptions were police, forensic, legal and some foreign journals. 36% of the journals it covered were among the 53 most frequently covered. BJC indexed 38 titles not covered by any other service. Overlap on other services ranged from 19% (on CDL) to 6% (JCL and LS).

(f) Journal of Criminal Law, Criminology and Police Science (JCL)

This is also a primary journal, but it provides abstracts, rather than index entries as in BJC. It had the smallest coverage of the six services examined - 32 journals in 1970. In spite of this, nearly 47% of its titles were covered by no other service, and it covered only 21% of the 53 most frequently covered titles; these were almost entirely concerned with police work, law, forensic science and detection. Its overlap on other services was very low, 8% on CDL being the highest; the other way round, LS covered 34% of JCL's titles, and ACP and CDA 31% each. It had a strong American bias.

4.5 Coverage of journal articles by secondary services

As noted earlier (3.1), journal titles offer only a rather crude test of coverage; individual articles provide a better base for testing. As a supplementary test to that of title coverage six primary journal titles common to the six secondary services were chosen, and a 25% sample of articles appearing in 1970 was taken from them. This sample yielded 56 articles. Because the primary journals from which they were taken were covered by all six secondary services examined, the test was essentially one of comprehensive and depth of coverage within journals central to the subject (the six journals were also the six highest on the citation frequency list derived from criminology source journals). All the 1970 issues of the six journals with dates of publication in 1970 formed the sampling frame; as the study was carried out in 1973, 1970 was selected to allow for time lag in coverage by the secondary services. As only one issue of _Acta Criminologica_ is published each year all of its 1970 articles were included in the sample. For the remaining 5 journals a 25% sample of articles was made by choosing every fourth article starting with the first.

The journals sampled were: _Acta Criminologica_, _British Journal of Criminology_, _Crime and Delinquency_, _Journal of Criminal Law_, _Criminology and Police Science_, _Revue de Droit Pénal et de Criminologie_, and _Revue Internationale de Criminologie et de Police Technique_.

For authors and titles of articles sampled see Appendix E1.

Coverage was tested against all six of the secondary services examined. Absence of author indexes in certain titles (e.g. _LS_) made checking difficult. The services were checked from 1970 to mid-1973.

Full details of coverage are given in Tables 11 and 12. A summary appears below:

TABLE 10

SUMMARY OF ARTICLE COVERAGE BY SECONDARY SERVICES IN CRIMINOLOGY

	no. of articles in sample	no. covered at least once	maximum no. covered by a single service
Acta Criminologica	4	4	4
British Journal of Criminology	8	8	7
Crime and Delinquency	10	8	7
Journal of Criminal Law	14	12	10
Revue de Droit Pénal	10	10	8
Revue Internationale de Criminologie	10	9	7

TABLE 11

COVERAGE OF ARTICLES IN PRIMARY JOURNALS BY SECONDARY SERVICES IN CRIMINOLOGY

Primary journals	No. of articles in sample	Secondary services						Actual ÷ potential coverage*	
		ACP	BJC	CDA	CDL	JCL	LS	n	%
Acta Criminologica	4	2	-	3	-	-	4	9/24	37.5
British Journal of Criminology	8	5		3	3	-	7	18/48	37.5
Crime and Delinquency	10	7	1	5	3	-	-	16/60	26.7
Journal of Criminal Law, Criminology & Police Science	14	10	3	-	7		9	29/84	34.5
Revue de Droit Pénal	10	6	-	-	1	-	8	15/60	25.0
Revue Internationale de Criminologie	10	3	-	3	-	-	7	13/60	21.7
TOTAL n	56	33	4	14	14	-	35	100/336	29.8
%	100	59	7	25	25	0	63		

* Total no. of entries in all services ÷ total no. of entries possible in all services

TABLE 12

FREQUENCY OF COVERAGE OF ARTICLES BY
SECONDARY SERVICES IN CRIMINOLOGY

No. of services in which each article is included	Articles n	%
0	5	9
1	19	34
2	17	30
3	13	23
4	2	4
TOTAL	56	100

Of those articles not covered by any service one was published in Revue Internationale de Criminologie (entitled 'Les rapports de detention du secret avec la justice'); two were published in Journal of Criminal Law, Criminology and Police Science ('The new American University' and 'Thin layer chromatography of LSD, DMIT, STP, and LA'); and two were published in Crime and Delinquency ('Illusions of treatment in sentences and civil commitments' and 'Police interrogation of juveniles'). The two from Journal of Criminal Law, Criminology and Police Science could be considered to be fringe articles but the remaining three would seem to be mainstream criminology.

These results show that, even for 'core' journals, coverage is surprisingly incomplete. It would have been slightly better if BJC and JCL had covered their own articles - there was clearly no point in their doing so - but this hardly affects the overall result.

4.6 Comparative performance of general secondary services

To test the assumption that general services were unlikely to perform better, and probably performed a good deal worse than specialised services, a test was made of the overlap of coverage of journal titles between each of the 6 criminology services studied and 2 general services – Psychological Abstracts and Sociological Abstracts. As can be seen from Table 13, the performance of both of these general services was very poor. They may of course have covered some relevant items not included in the specialised services; this might serve to show the shortcomings of the specialised services, but at best would make the general services useful for no more than a supplementary check.

TABLE 13

OVERLAP IN JOURNAL COVERAGE BETWEEN SECONDARY SERVICES IN CRIMINOLOGY, *PSYCHOLOGICAL ABSTRACTS* AND *SOCIOLOGICAL ABSTRACTS*

	ACP		BJC		CDA		CDL		JCL		LS	
	n	%	n	%	n	%	n	%	n	%	n	%
No. of journals covered by each service	274	100	86	100	214[1]	100	90	100	32	100	196	100
Psychological Abstracts (1970)	50	18	21	24	10	5	11	12	0	0	5	3
Sociological Abstracts (1970)[2]	26	9	17	20	21	10	16	18	0	0	8	4

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[1] Data for 1969 issues

[2] *Sociological Abstracts* provides a list of titles which were not covered in 1970 but which were scanned regularly; these titles are not included in the present total.

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5.0 COVERAGE AND OVERLAP OF SECONDARY SERVICES: PUBLIC ADMINISTRATION

5.1 Secondary services studied

In criminology, six secondary services more or less specific to criminology were identified and studied. In public administration, selection of secondary services for analysis is much harder, since there is only one major, and three minor, services specifically orientated to public administration. On the other hand, there are several services, some of them important, that cover wider areas such as political science, or even social science in general, and to have ignored these would have yielded almost meaningless results. Twenty-one secondary services, several of them issued as part of primary journals, were finally chosen for analysis. These are listed, with their relevant characteristics, in Table 14. Among them are a few examples of locally produced journals aimed at a limited audience - for example, Focus, produced by the London Borough of Wandsworth Public Libraries, and the Royal Institute of Public Administration Library's Accession list. These were included to compare their coverage with that of major published services, since it seemed quite probable that such local services would include significant items missed by larger services.

5.2 Coverage of journal titles by secondary services

(i) Basic coverage

If it is difficult to devise a valid test of the coverage of criminology, it is much more difficult to do so for public administration, which is much less clearly defined as a subject area. One cannot assume that the journals most covered by services dealing with public administration are the main journals in the field of public administration, since nearly all the services are wider, often much wider, in scope. One cannot even use the primary journals covered by the services specific to public administration as a test, since these services are so few that it cannot be assumed that the journals they cover represent a high proportion of all journals principally concerned with public administration; and in any case they obviously cannot provide any sort of base against which to test the secondary services that cover them.

TABLE 4.

CHARACTERISTICS OF SECONDARY SERVICES IN PUBLIC ADMINISTRATION

Title (In order of number of journals covered	Country of origin	Publisher and/or sponsor	Starting date etc.	No. of issues in 1970	No. of journals covered in 1970	No. of entries in 1970	Primary or secondary journal	Titles or abstracts
1. Bulletin Analytique de Documentation Politique, Économique et Sociale Contemporaine (BA)	France	Fondation nationale des sciences politiques	1946-	10	2073	4,571	Secondary	Abstracts
2. Public Affairs Information Service Bulletin (PAIS)	USA	Public Affairs Information Service (New York)	1915-	50	992	c. 86,500	Secondary	Titles
3. Australian Public Affairs Information Service (APAIS)	Australia	National Library of Australia	1945-	12	869	c. 5,200	Secondary	Titles
4. International Bibliography of the Social Sciences (Political Sci) (IBSS)	(International)	International Committee for Social Sciences Documentation (ICSSD)	1952-	1	554	4,032	Secondary	Titles
5. British Humanities Index (BHI)	UK	Library Association	1962-	4	364	c. 1,550	Secondary	Titles (journal articles only)
6. International Political Science Abstracts (IPSA)	UK	International Political Science Association in cooperation with ICSSD	1951-	4	346	2,102	Secondary	Abstracts (journal articles only)
7. Public Administration Abstracts and Index of Articles Quarterly (PAA)	India	Indian Institute of Public Administration	1957-	4	331	82 abstracts c. 3,380 titles (excl. newspapers)	Secondary	Abstracts and Titles (journal and newspaper articles only)
8. Recent Publications on Governmental Problems (RPGP)	USA	Public Administration Service (Chicago)	1933-	24	316		Secondary	Titles
9. Index to Periodical Articles (Department of the Environment)	UK	Ministry of Housing and Local Government (-Oct.) Department of the Environment Library (Nov. & Dec.)	1947; from 1972, Library Bulletin	24	305	2,613	Secondary	Abstracts
10. ABC Pol Sci: Advance Bibliography of Contents: Political Science & Government (ABC)	USA	American Bibliographical Center - Clio Press	1968-	8	264	10,886	Secondary	(Edited version of contents pages of primary journals)

TABLE 14

CHARACTERISTICS OF SECONDARY SERVICES IN PUBLIC ADMINISTRATION (cont.)

Title (In order of number of journals covered)	Country of origin	Publisher and/or sponsor	Starting date etc.	No. of issues in 1970	No. of journals covered in 1970	No. of entries in 1970	Primary or secondary journal	Titles or abstracts
11. Personnel Literature (PL)	USA	US Civil Service Commission Library	1942	12	204	c. 3,350	Secondary	Abstracts (of selected items received by US CSC Library)
12. Social Sciences and Humanities Index (SSHI)	USA	H. W. Wilson	1912; in 1974, split into Humanities Index and Social Sciences Index	4	203	c. 8,700	Secondary	Titles (journal articles only)
13. Current Literature on Community Health and Personal Social Services (CLCH)	UK	Department of Health and Social Security (London)	1965-66, Selected References on Local Authority Health & Welfare Services; 1966-71, Current Literature on Local Authority Health and Welfare Services; in 1974, split into Current Literature on Health Services and Current Literature on Personal Social Services	12	174	c. 850	Secondary	Titles
14. Anbar: Management Services Bibliography	UK	Anbar Publications Limited	1961-; from 1971, divided into 4 sections	10	150	c. 1,000	Secondary	Titles
15. Research Index (RI)	UK	Business Surveys Limited	1965-	26	111	c. 34,400	Secondary	Titles (journals and newspapers only)
16. LOGA - Local Government Annotations Service (LOGA)	UK	Advisory Board of Librarians (London Boroughs Associations)	1966	12	94	3,370	Secondary	Abstracts (British journals only)
17. Bulletin d'Institut International d'Administration Publique (BIIAP)	France	Institut internationale d'administration publique	1967	4	69		Primary (section 'Informations bibliographiques - Revues et periodiques')	Abstracts
18. International Review of Administrative Sciences (IRAS)	Belgium	Institut international des sciences administratives	1935	4	56	109	Primary (section entitled 'Bibliography - a selection', of which one part is called 'Articles')	Titles
19. Royal Institution of Public Administration Accessions List (RIPA)	UK	Royal Institute of Public Administration	1962-	3 (irregular)	54	c. 250	Secondary	Titles
20. Focus	UK	London Borough of Wandsworth Public Libs.	1966-	12	39	1,529	Secondary	Abstracts (journal articles only)
21. Quarterly Bulletin of the Intelligence Unit, Greater London Council (QBGLC)	UK	Greater London Council	1967-74, Quarterly Bulletin of the (Research and) Intelligence Unit, GLC; from 1974, Greater London Intelligence Quarterly.	4	30	52	Primary (section entitled 'London Research Abstracts')	Abstracts

In theory, journals specifically concerned with public administration could have been selected from the more frequently covered titles, but this would have involved subjective judgment.

In all, 5053 primary journals were covered by the 21 services studied. Grouped by the number of secondary services that covered them, they formed 13 coverage groups: the number of titles in each group is given in Table 15, and primary journals covered by 4 or more services are listed in Appendix D.

The vast majority - 75% - of titles were covered by one service only, and a further 13% by two services. As frequency of coverage declines, so the proportion of journals related, rathen than central, to public administration gradually increases; among the less frequently covered titles many reflect a bias of many of the secondary services towards such subjects as economics, political science, architecture and planning, and law, although they still include much material central to public administration. Many of the services studied had such extensive coverage that they inevitably included much marginal material - for example, Bulletin Analytique (2073 journals), PAIS Bulletin (992), Australian PAIS (869), and International Bibliography of the Social Sciences - Political Science (554). If one includes British Humanities Index (364), the five largest secondary services are all indexing rather than abstracting services. The two main abstracting journals studied, International Political Science Abstracts and Public Administration Abstracts, covered no more than 350 journals each. It will be remembered that most of these services were not restricted to public administration, but aimed to cover a much broader area (whereas in the criminology study, the services were all oriented specifically to criminology).

The most widely covered journal (by 15 services) was Public Administration (London), followed by Public Administration Review (Washington) (13 services) and International Review of Administrative Sciences (11 services). Table 16 shows the exact coverage of these three journals by the secondary services. There were five journals, of which four were not directly concerned with public administration,

TABLE 15

FREQUENCY OF COVERAGE OF PRIMARY JOURNALS BY SECONDARY SERVICES IN PUBLIC ADMINISTRATION

Coverage group (Frequency of coverage)	Cumulative no. of titles	Cumulative percentage	No. of titles	%
15	1	0.02	1	0.02
13	2	0.04	1	0.02
11	3	0.06	1	0.02
10	8	0.2	5	0.1
9	21	0.4	13	0.3
8	33	0.6	12	0.2
7	64	1.3	31	0.6
6	103	2.0	39	0.8
5	165	3.3	62	1.2
4	326	6.5	161	3.2
3	588	11.6	262	5.2
2	1245	24.6	657	13.0
1	5033	100.0	3808	75.4

TABLE 16

COVERAGE OF INDIVIDUAL JOURNALS BY PUBLIC ADMINISTRATION SECONDARY SERVICES

No of secondary services covering each journal		RA	PAIS	APAIS	IBSS	BHI	IPSA	PAA	RPGP	IPA	ABC	PL	SSHI	CLCH	Anbar	RI	LOGA	BIIAP	IRAS	RIPA	Focus	GBGLC
15	Public Admin. (London)	X	X		X	X	X	X	X	X	X	X		X			X		X	X	X	
13	Public Admin. Review	X	X		X		X	X	X	X	X	X	X					X	X	X		
11	Int. Rev. of Admin. Sci.		X		X		X	X	X	X	X	X			X			X		X		
10	Administrative Science Q.	X	X		X		X	X	X		X	X							X	X		
	Economist	X	X	X		X		X		X			X			X	X				X	
	Int. Soc. Sci. Journal	X	X		X		X	X			X	X	X						X	X		
	Journal of Politics	X	X		X		X	X	X		X		X						X	X		
	Political Quarterly	X	X				X	X		X	X	X	X				X			X		
9	Administration	X			X		X	X	X		X	X							X	X		
	Amer. J. of Econ. and Sociol.	X	X		X		X	X	X	X	X		X									
	American Journal of Sociology	X			X		X	X	X	X	X	X	X									
	American Pol. Sci. Review	X			X		X	X	X		X	X	X							X		
	Annals Amer. Acad. of Pol. & Soc. Sci.	X	X		X		X	X	X		X	X							X			
	Canadian Public Administration	X	X		X		X	X	X		X								X	X		
	Indian J. of Public. Admin.	X	X				X	X	X		X	X							X	X		
	International Affairs	X	X		X	X	X	X			X		X					X				
	New Society	X				X		X		X				X		X	X			X	X	
	Parliamentary Affairs	X	X		X	X	X	X		X	X									X		
	Political Studies	X	X		X	X	X	X			X		X							X		
	Public Admin. (Sydney)	X			X		X	X	X		X	X							X	X		
	Western Political Quarterly	X	X		X		X	X	X		X	X	X									
8	American Behavioral Scientist	X			X		X	X	X	X	X		X									
	Canadian J. of Political Sci.	X	X		X		X	X	X		X		X									
	Economic Journal	X	X		X	X		X		X			X									X
	Government and Opposition	X	X		X	X	X	X			X									X		
	J. Commonwealth Pol. Studies	X	X	X	X		X	X			X									X		
	J. Modern African Studies	X			X	X	X				X		X					X		X		
	National Civic Review	X	X		X		X		X	X	X									X		
	Personnel Management	X		X		X		X	X			X		X	X							
	Political Science Quarterly	X	X		X		X	X	X		X									X		
	Public Law	X			X		X			X	X						X	X		X		
	Social Forces	X	X		X		X	X			X	X	X									
	World Politics	X	X		X		X	X	X		X		X									

TABLE 16 (CONT.)

No. of secondary services covering each journal		NA	PAIS	APAIS	IBSS	BHI	IPSA	PAA	RPOP	IPA	ABC	PL	SSHI	CLCH	Asbar	PI	LOGA	BIIAP	IRAS	RIPA	Focus	QBGLC
7	American Economic Review	X	X		X			X	X		X		X									
	American Sociological Review	X			X		X	X	X		X		X									
	Asian Survey	X			X		X	X			X		X					X				
	Australian Outlook	X	X	X	X	X	X				X											
	British Journal of Sociology	X			X	X	X	X					X				X					
	China Quarterly	X	X		X		X	X			X							X				
	Econ. Dev. & Cultural Change	X	X		X		X	X	X		X											
	Foreign Affairs	X	X		X		X	X			X							X				
	Harvard Law Review	X	X		X		X	X	X		X											
	Human Relations	X			X	X		X			X	X	X									
	International Organisation	X	X		X		X	X			X		X									
	J. of Admin Overseas	X	X		X		X	X			X									X		
	J. of Development Studies	X	X		X	X	X				X								X			
	Journal of Social Issues	X			X		X	X	X		X		X									
	Law and Contemporary Problems	X	X		X		X				X		X							X		
	Lloyds Bank Review	X	X			X		X		X					X					X		
	Local Government Chronicle								X	X				X	X		X			X	X	
	Management Today	X	X				X	X					X		X	X						
	Middle East Journal	X	X		X		X	X			X		X									
	Midwest J. of Political Science	X	X		X		X	X	X		X											
	New Zealand J. of Public Admin.	X	X		X		X	X			X									X		
	Orbis	X	X		X		X	X			X		X									
	Pacific Affairs	X	X		X		X	X			X		X									
	Philippine J. of Public Admin.	X	X		X		X	X			X								X			
	Political Science	X	X		X	X	X	X			X											
	Public Interest	X	X		X		X	X	X		X											
	Public Opinion Quarterly	X	X		X		X	X			X		X									
	Review of Politics	X			X		X	X			X		X					X				
	Sociological Review	X			X	X	X	X		X			X									
	Soviet Studies	X	X		X	X	X				X		X									
	Urban Affairs Quarterly	X	X				X		X	X	X	X										
	TOTAL	62	47	4	55	18	56	55	29	17	55	17	33	4	5	3	7	9	12	26	4	1

Journals covered by fewer than 7 services are not listed

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covered by 10 secondary services. Even among the journals least frequently covered, however, there are many of direct relevance to public administration. Many of the least frequently covered journals are non-English language or are of localized or specialized interest. The six secondary services (LOGA, BIIAP, IRAS, RIPA, Focus and QBGLC) that cover less than 100 journals each tend to cover more of the less frequently covered journals, although this applies to IRAS and RIPA less than to the other four services (Table 17). Three of these services are published in the UK for local use (LOGA, Focus, QBGLC), while two (BIIAP and IRAS) are included in primary journals; RIPA is a library-produced accession bulletin which carries index entries. All six of these services are aimed fairly directly at public administration, and do not give broad coverage to economics, sociology and political science. The differences between all the services in their coverage of frequently covered journals can be gauged from Table 17 (discussed in the next section).

(ii) Ranking of secondary services by journal coverage

In Table 17 the 21 secondary services are ranked according to their coverage of the 64 most frequently covered primary journals - those covered by 7 or more services. For analysis the 64 titles have been broken down into two groups; all 64 journals and the 21 that were covered by 9 or more services.

Coverage of 10 or more of the 21 most frequently covered titles is achieved by 11 of the 21 secondary services. The poor performances of APAIS (1 out of 21) and BHI (6 out of 21) are explained by the restriction to Australian and British material respectively. BHI has a slightly better coverage of the 'top 64' titles, for which it ranks 10th among the 21 secondary services, than of the 'top 21', where it ranks 13th. As in criminology (Table 4), the rank order of secondary services according to the total number of titles covered is not very closely related to their rank order by coverage of 'top' titles. The largest services are of course not necessarily the most satisfactory for users, in terms of relevance and useful coverage; for example, BA and PAIS both cover a wide range of material and rank fairly high on coverage of the top 21 and 64 titles, but both contain a good deal of 'noise' and have strong biases,

TABLE 17

PUBLIC ADMINISTRATION SECONDARY SERVICES RANKED ACCORDING TO COVERAGE OF PRIMARY JOURNALS

Service	A Total no. of journals covered	B Rank by total no. of titles covered	C Number of titles covered 9 or more times (n = 21)	D Rank by coverage of 'top 21'	E Number of titles covered 7 or more times (n = 64)	F Rank by coverage of 'top 64'	G 'Top 21' (C) / All journals covered (A) %	H % of 'top 21' titles covered	I 'Top 64' (E) / All journals covered (A) %	J % of 'top 64' titles covered
BA	2073	1	20	2	62	1	1.0	95.2	3.0	96.9
PAIS	992	2	16	6	47	6	1.6	76.2	4.7	73.4
APAIS	869	3	1	19=	4	17=	0.1	4.8	0.5	6.3
IBSS	554	4	17	5	55	4=	3.1	81.0	9.9	86.0
BHI	364	5	6	13	18	10	1.7	28.6	5.0	28.1
IPSA	346	6	19	3=	56	2=	5.5	90.5	16.1	87.5
PAA	331	7	21	1	55	4=	6.3	100.0	16.6	85.9
RPGP	316	8	14	8	29	8	4.4	66.7	9.1	45.3
IPA	305	9	9	12	17	11=	3.0	42.9	5.7	26.6
ABC	264	10	19	3=	56	2=	7.2	90.5	21.1	87.5
PL	204	11	13	9	17	11=	6.3	61.9	8.2	26.6
SSHI	203	12	11	10	33	7	5.5	52.4	16.3	51.6
CLCH	173	13	2	17=	4	17=	1.2	9.5	2.3	6.3
Anbar	150	14	1	19=	5	16	0.7	4.8	3.3	7.8
RI	111	15	2	17=	3	20	1.8	9.5	2.7	4.7
LOGA	94	16	4	14	7	15	4.3	19.1	7.5	10.9
BIIAP	69	17	3	15=	9	14	4.3	14.3	12.9	14.1
IRAS	56	18	10	11	12	13	18.2	47.6	21.8	18.8
RIPA	54	19	15	7	26	9	27.8	71.4	48.2	40.6
Focus	39	20	3	15=	4	17=	7.8	14.3	10.3	6.3
QBGLC	30	21	0	21	1	21	0.0	0.0	3.3	1.6

BA to non-English language material and PAIS to US literature. ABC and PAA, although smaller, and perhaps more manageable, both rate similarly to BA and PAIS of coverage of 'top' titles.

The matrix of primary journal by secondary service coverage in Table 16 deals with the 64 most frequently covered journals. Bearing in mind that not all of these journals are by any means equally relevant to public administration, there are six secondary services which achieve a high level of coverage (BA, PAIS, IBSS, IPSA, PAA and ABC). IPSA, BA and PAA, all abstracting services, give good coverage of the journals specifically concerned with public administration. The remaining three services in this group are perhaps rather less orientated to public administration. Fewer than 20 of the 64 most frequently covered journals can be considered as core primary journal literature of public administration. The lesser coverage of such services as SSHI, RPGP, PL, BIIAP, RIPA and IPA may suggest more concentration on core journals, but this is not always the case, since some of the services are more specialised than others.

As will have been noted, it is difficult to assess the secondary services by using as a base for testing the most frequently covered journals, because these include many that are not specifically 'public administration'. A better, though somewhat subjective, test is by coverage of those frequently covered journals that are concerned specifically with public administration. The three most frequently covered journals of all (Public Administration, Public Administration Review and International Review of Administrative Sciences) are as it happens concerned with public administration, and an analysis of the coverage of these is informative (Table 16). Three services - APAIS, QBGLC and RI - do not cover any of the three titles. In the case of APAIS this is explained by the fact that it is concerned solely with Australian material; QBGLC is orientated towards planning, and RI towards business and commerce. Anbar, CLCH, LOGA, Focus, SSHI and BHI each cover only one of the three journals. Anbar is mainly management related; CLCH and LOGA cover British journals, as do Focus and BHI - moreover, all four services are practitioner-orientated. SSHI is a general literature service not specifically geared to research needs. BA, BIIAP and IRAS each cover two of the three journals.

The remaining secondary services cover all three journals. Three of these are concerned with political science (IBSS, ABC Pol Sci, IPSA). One is more general (PAIS); IPA is mainly concerned with planning and environmental issues; and PL covers labour and personnel matters. This leaves three services (excluding BIIAP) which seem to be strongly identified with public administration, one British, one produced in the USA and one in India - RIPA (index entries), RPGD (index entries) and PAA.

(iii) Distribution of journals covered by each service according to extent of total coverage

The distribution of coverage, by coverage group for each service is given in Table 18. On the basis of journals covered only by the service in question, the services can be divided into two groups - the first where once-covered journals outnumber those in each of the other coverage groups, and the second where they are outnumbered by any of the other coverage groups. Services in the second category fall into two sub-groups; the first consists of the main political science services (IBSS, IPSA and ABC), and the second of some of the smaller services, orientated to public administration (LOGA, BIIAP, Focus and QBGLC). Although this grouping may be accidental, it could be seen as evidence of a tendency for certain services to cover central rather than peripheral journals (if a peripheral journal can reasonably be defined as one that is covered by only one service).

As with criminology (Table 6), within each service in public administration there is a general pattern of scatter, from a fair number of once-covered journals, through a gradually diminishing number of journals covered more than once to a small number of extensively-covered journals, except in the cases above, where once-covered journals are not the most numerous category.

TABLE 18

COVERAGE OF JOURNALS BY PUBLIC ADMINISTRATION SECONDARY SERVICES ACCORDING TO 'COVERAGE GROUP'

Service	(A) Number of titles covered	Titles covered by 1-5 services														
		1			2			3			4			5		
		No.	% of A	% of B	No.	% of A	% of B	No.	% of A	% of B	No.	% of A	% of B	No.	% of A	% of B
Titles in each 'coverage group' (B)		3808			657			262			161			62		
BA	2073	1260	33.1	60.6	369	56.1	17.7	184	70.2	8.9	120	74.5	5.8	54	87.1	2.6
PAIS	992	521	13.7	52.1	234	35.6	23.4	93	35.5	9.3	55	34.1	5.5	36	58.1	3.6
APAIS	869	770	20.2	90.4	46	7.0	5.4	14	5.3	1.6	11	6.8	1.3	5	8.1	0.6
IBSS	555	67	1.8	12.0	173	26.3	31.0	114	43.5	20.4	86	53.4	15.4	42	67.7	7.5
BHI	364	262	6.9	72.4	28	4.3	7.7	17	6.5	4.7	14	8.7	3.9	12	19.4	3.3
IPSA	346	15	0.4	4.3	36	5.5	10.4	98	37.4	28.2	83	51.6	23.9	33	53.0	9.5
PAA	331	120	3.2	36.1	37	5.6	11.1	41	15.6	12.3	33	20.5	9.9	22	35.5	6.6
RPGP	316	129	3.4	40.6	91	13.9	28.6	34	13.0	10.7	21	13.0	6.6	9	14.5	2.8
IPA	305	150	3.9	49.8	63	9.6	20.9	23	8.8	7.6	31	19.3	10.3	8	12.9	2.7
ABC	264	26	0.7	9.8	40	6.1	15.1	29	11.1	9.6	68	42.2	25.7	29	46.8	9.6
PL	204	82	2.2	39.4	37	5.6	17.8	39	14.9	18.8	16	9.9	7.7	7	11.3	3.4
SSHI	203	90	2.4	44.6	25	3.8	12.4	14	5.3	6.9	17	10.6	8.4	11	17.7	5.4
CLCH	173	121	3.2	69.5	24	3.7	13.8	12	4.6	6.9	10	6.2	5.7	2	3.2	1.1
Anbar	150	84	2.2	55.6	31	4.7	20.5	13	5.0	8.6	10	6.2	6.6	4	6.4	2.6
RI	111	74	1.9	66.6	15	2.3	13.5	8	3.1	5.3	7	4.3	6.3	3	4.8	2.[illegible]
LOGA	94	24	0.6	25.5	27	4.1	28.7	14	5.3	15.0	14	8.7	15.0	5	8.1	5.3
BIIAP	69	11	0.3	15.7	20	3.0	28.6	10	3.8	14.3	6	3.7	8.6	8	12.9	11.4
IRAS	56	14	0.4	25.5	6	0.9	10.9	6	2.3	10.9	4	2.5	7.2	5	8.1	9.1
RIPA	54	8	0.2	14.8	5	0.8	9.3	3	1.1	5.5	4	2.5	7.4	4	6.5	7.4
Focus	39	1	0.0	1.0	8	1.2	20.5	11	4.2	28.2	11	6.8	28.2	2	3.2	5.1
QBGLC	30	4	0.1	13.3	9	1.4	30.0	5	1.9	16.6	7	4.3	23.3	2	3.2	6.6

TABLE 18 (cont)

COVERAGE OF JOURNALS BY PUBLIC ADMINISTRATION SECONDARY SERVICES
ACCORDING TO 'COVERAGE GROUP'

Service	(A) Number of titles covered	Titles covered by 6-15 services																				
		6			7			8			9			10			11		13		15	
		No.	% of A	% of B	No.	% of A	% of B	No.	% of A	% of B	No.	% of A	% of B	No.	% of A	% of B	No.	% of B	No.	% of B	No.	% of B
Titles in each 'coverage group' (B)		39			31			12			13			5			1		1		1	
BA	2073	33	84.6	1.6	29	93.5	1.4	10	83.3	0.5	13	100.0	0.6	5	100.0	0.2	0	0.0	1	0.05	1	0.05
PAIS	992	19	48.7	1.9	20	64.5	2.0	8	66.7	0.8	7	53.8	0.7	4	80.0	0.4	1	0.1	1	0.1	1	0.1
APAIS	869	3	7.7	0.4	1	3.2	0.1	1	8.3	0.1	0	0.0	0.0	1	20.0	0.1	0	0.0	0	0.0	0	0.0
IBSS	555	24	61.5	4.3	27	87.1	4.8	10	83.3	1.8	10	76.9	1.8	2	40.0	0.4	1	0.2	1	0.2	1	0.2
BHI	364	10	25.6	2.8	9	29.0	2.5	4	33.3	1.1	4	30.8	1.1	1	20.0	0.3	0	0.0	0	0.0	1	0.3
IPSA	346	26	66.6	7.5	27	87.1	7.8	9	75.0	2.6	13	100.0	3.7	4	80.0	1.1	1	0.3	1	0.3	1	0.3
PAA	331	25	64.1	7.5	25	80.6	7.5	9	75.0	2.7	13	100.0	3.9	4	80.0	1.2	1	0.3	1	0.3	1	0.3
RPGP	316	6	15.4	1.9	8	25.8	2.5	6	50.0	1.9	9	69.2	2.8	2	40.0	0.6	1	0.3	1	0.3	1	0.3
IPA	305	9	23.1	3.0	4	19.4	1.3	4	33.3	1.3	4	30.8	1.3	2	40.0	0.7	1	0.3	1	0.3	1	0.3
ABC	264	17	43.6	6.4	26	83.9	9.8	10	83.3	3.8	13	100.0	4.9	4	80.0	1.5	1	0.4	1	0.4	1	0.4
PL	204	9	23.1	4.3	3	9.7	1.4	2	16.7	1.0	8	61.5	4.0	2	40.0	1.0	1	0.5	1	0.5	1	0.5
SSHI	203	13	33.3	6.4	15	48.4	7.4	6	50.0	3.0	6	46.2	3.0	4	80.0	2.0	0	0.0	1	0.5	0	0.0
CDCH	173	1	2.6	0.6	1	3.2	0.6	1	8.3	0.6	1	7.7	0.6	0	0.0	0.0	0	0.0	0	0.0	1	0.6
Anbar	150	4	10.3	2.6	3	9.7	2.0	1	8.3	0.7	0	0.0	0.0	0	0.0	0.0	1	0.7	0	0.0	[illegible]	0.0
RI	111	1	2.6	0.9	1	3.2	0.9	0	0.0	0.0	1	7.7	0.9	1	20.0	0.9	0	0.0	0	0.0	[illegible]	0.0
LOGA	94	3	7.7	3.2	2	6.5	2.1	1	8.3	1.1	1	7.7	1.1	2	40.0	2.1	0	0.0	0	0.0	[illegible]	0.0
BIIAP	69	6	15.4	8.6	4	12.9	5.7	2	16.7	2.9	1	7.7	1.4	0	0.0	0.0	1	1.4	1	1.4	1	1.1
IRAS	56	7	17.9	12.7	2	6.5	3.6	0	0.0	0.0	7	53.8	12.7	2	40.0	3.6	0	0.0	1	1.8	1	1.8
RIPA	54	4	10.3	7.4	4	12.9	7.4	6	50.0	11.1	10	76.9	18.5	3	60.0	5.5	1	1.8	1	1.8	1	1.8
Focus	39	2	5.1	5.1	1	3.2	2.6	0	0.0	0.0	1	7.7	2.6	1	20.0	2.6	0	0.0	0	0.0	1	2.6
QBGLC	30	2	5.1	6.6	0	0.0	0.0	1	8.3	3.3	0	0.0	0.0	0	0.0	0.0	0	0.0	0	0.0	0	0.0

The long tails of once-covered journals indicate a wide scattering of coverage, which is partly explained by the heterogeneous selection of services studied for public administration, but more by the fact that many of the peripheral journals are of very little relevance to public administration (see Appendix C). Because public administration spreads across political science, management and social and environmental planning there is a high level of noise in service coverage from peripheral journals in the other subjects. There are few services specific to public administration and the more general or related services are bound to have high noise levels so far as public administration is concerned.

(iv) Proportion of journals in each coverage group covered by each service

Table 18 compares the number of journals covered by each service with the total number of journals in each coverage group. There are two points of interest in this data. The coverage by services of journals in the higher coverage groups provides an estimate of their coverage of the major literature of the field; and secondly, the data shows that the relationship between actual and potential coverage is affected by the size of the service. For example, BA covered more than half the journals on the public administration file, so its coverage of titles within each coverage group is high, especially in the lower coverage groups, e.g. 33% of once-covered journals and 56% twice-covered journals.

On journals covered 11 or more times, there was either 100% coverage, or none at all because there was only one potential journal in each group. The 165 journals covered 5 or more times form a suitable basis for assessing the coverage of the main literature relevant to public administration. BA covered 146 of them, followed by IBSS (118), IPSA (115), ABC (102), PAA (101), and PAIS (97).

(v) Geographical origin of titles covered

Notwithstanding subject differences and the larger number of services and primary journals analysed, the geographical distribution of titles covered by public administration secondary services is very similar to criminology (Tables 7 and 19). North America and Western Europe are the main sources, except that within Western Europe France and Italy are as

TABLE 19

GEOGRAPHICAL DISTRIBUTION OF JOURNALS COVERED BY PUBLIC ADMINISTRATION SECONDARY SERVICES

Countries	Anbar		ABC		APAIS		BA		BHI		BIIAP		CLCH		Focus	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
United Kingdom	73	48.7	22	8.3	45	5.2	131	6.3	322	88.5	7	10.1	82	47.4	38	97.4
France	6	4.0	16	6.1	2	0.2	608	29.3	0	0.	39	56.5	4	2.3	0	0.
Federal Germany	7	4.7	12	4.5	1	0.1	117	5.6	0	0.	0	0.	4	2.3	0	0.
Netherlands	4	2.7	5	1.9	3	0.3	34	1.6	0	0.	0	0.	4	2.3	0	0.
Italy	0	0.	8	3.0	0	0.	166	8.0	0	0.	1	1.4	2	1.2	0	0.
Other Europe	6	4.0	23	8.7	1	0.1	232	11.2	4	1.1	2	2.9	13	7.5	0	0.
N. America	31	20.7	134	50.8	21	2.4	297	14.3	14	3.9	8	11.6	34	19.7	0	0.
E. Europe	2	1.3	6	2.3	2	0.2	94	4.5	0	0.	1	1.4	0	0.	0	0.
USSR	0	0.	1	0.4	0	0.	53	2.6	0	0.	0	0.	0	0.	0	0.
Japan	0	0.	3	1.1	1	0.1	21	1.0	0	0.	0	0.	0	0.	0	0.
Black Africa	1	0.7	0	0.	0	0.	29	1.4	1	0.3	4	5.8	0	0.	0	0.
Southern Africa	2	1.3	0	0.	1	0.1	7	0.3	0	0.0	0	0.	0	0.	0	0.
Arab World	0	0.	2	0.8	0	0.	39	1.9	1	0.3	0	0.	0	0.	0	0.
Asia	4	2.7	11	4.2	6	0.7	71	3.4	1	0.3	1	1.4	2	1.2	0	0.
C. & S. America	0	0.	4	1.5	0	0.	120	5.8	0	0.0	4	5.8	1	0.6	0	0.
Oceania/ Australasia	6	4.0	8	3.0	781	89.9	30	1.4	4	1.1	0	0.	3	1.7	0	0.
International	0	0.	1	0.4	0	0.	2	0.1	0	0.	0	0.	0	0.	0	0.
Other/ Unidentified	8	5.3	8	3.0	5	0.6	22	1.1	17	4.7	2	2.9	24	13.9	1	2.6
	150	100	264	100	869	100	2073	100	364	100	69	100	173	100	39	100

TABLE 19 (cont.)

GEOGRAPHICAL DISTRIBUTION OF JOURNALS COVERED BY
PUBLIC ADMINISTRATION SECONDARY SERVICES

Countries	IPA		IBSS (Pol)		IPSA		IRAS		LOGA		PAA	
	n	%	n	%	n	%	n	%	n	%	n	%
United Kingdom	169	55.4	50	9	36	10.4	4	7.1	83	88.3	53	16
France	15	4.9	65	11.7	42	12.1	8	14.3	0	0	2	0.6
Federal Germany	8	2.6	44	7.9	25	7.2	4	7.1	0	0	3	0.9
Netherlands	5	1.6	11	2	7	2	0	0	0	0	5	1.5
Italy	2	0.6	39	7	18	5.2	7	12.5	0	0	2	0.6
Other Europe	20	6.6	69	12.5	42	12.1	6	10.7	0	0	9	2.7
N. America	53	17.4	115	20.8	93	26.9	8	14.3	2	2.1	105	31.7
E. Europe	2	0.7	25	4.5	14	4	1	1.8	0	0	3	0.9
USSR	4	1.3	14	2.5	3	0.9	0	0	0	0	0	0
Japan	1	0.3	19	3.4	6	1.7	0	0	0	0	3	0.9
Black Africa	0	0	7	1.3	4	1.2	1	1.8	0	0	1	0.3
Southern Africa	0	0	3	0.5	0	0	0	0	0	0	0	0
Arab World	0	0	8	1.4	2	0.6	0	0	1	1.1	0	0
Asia	0	0	20	3.6	19	5.5	8	14.3	0	0	127	38.4
C. & S. America	2	0.7	36	6.5	20	5.8	7	12.5	0	0	0	0
Oceania/ Australasia	3	1	7	1.3	7	2	1	1.8	1	1.1	12	3.6
International	0	0	1	0.2	1	0.3	1	1.8	0	0	2	0.6
Other/ Unidentified	21	6.9	21	3.8	7	2	0	0	7	7.4	4	1.2
	305	100	554	100	346	100	56	100	94	100	331	100

TABLE 19 (cont)

GEOGRAPHICAL DISTRIBUTION OF JOURNALS COVERED BY PUBLIC ADMINISTRATION SECONDARY SERVICES

Countries	PAIS		PL		QBGLC		RI		RIPA		RPGP		SSHI	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
United Kingdom	110	11.1	12	5.9	25	83.3	40	36	30	55.6	11	3.5	38	18.7
France	6	0.6	1	0.5	0	0	0	0	0	0	0	0	2	1
Federal Germany	11	1.1	0	0	0	0	0	0	0	0	1	0.3	0	0
Netherlands	15	1.5	0	0	0	0	0	0	0	0	3	0.9	2	1
Italy	13	1.3	0	0	0	0	0	0	0	0	0	0	0	0
Other Europe	46	4.6	2	1	1	3.3	0	0	3	5.6	3	0.9	1	0.5
N. America	654	66	147	72.1	2	6.6	1	0.9	11	20.4	290	91.8	152	74.9
E. Europe	7	0.7	0	0	0	0	0	0	0	0	1	0.3	0	0
USSR	2	0.2	0	0	0	0	0	0	0	0	0	0	0	0
Japan	10	1	0	0	0	0	0	0	0	0	0	0	0	0
Black Africa	8	0.8	0	0	0	0	0	0	1	1.9	0	0	0	0
Southern Africa	8	0.8	0	0	0	0	1	0.9	0	0	0	0	0	0
Arab World	2	0.2	0	0	0	0	0	0	0	0	0	0	0	0
Asia	59	5.9	1	0.5	0	0	0	0	2	3.7	3	0.9	2	1
C. & S. America	7	0.7	0	0	0	0	0	0	0	0	0	0	0	0
Oceania/ Australasia	25	2.5	3	1.5	0	0	0	0	1	1.9	3	0.9	2	1
International	2	0.2	1	0.5	0	0	0	0	2	3.7	0	0	1	0.5
Other/ Unidentified	7	0.7	37	18.1	2	6.6	69	62.2	4	7.4	1	0.3	3	1.5
	992	100	204	100	30	100	111	100	54	100	316	100	203	100

important contributors of titles as the UK and Federal Germany. Compared with criminology, the services studied represent a wider variety of types, so that contrasts in geographical coverage are more likely to occur; the effect of larger coverage is also noticeable. Locally produced services in the UK (Focus, LOGA, QBGLC, RI) concentrate very largely on domestic titles; for different reasons, BHI and APAIS concentrate on UK and Australian titles respectively (both are general services designed for national audiences of users).

BA (2,073 titles covered) and IBSS (554 titles) deal with titles irrespective of geographical origin. The proportion of domestic literature (that published in the country of origin of the service) varies considerably. Of the more widely known services, the proportion of domestic literature is 88% in BHI (UK), about 90% in RPGP (USA and Canada), about 50% in ABC Pol Sci (USA and Canada), 55% in IPA (UK), 49% in Anbar (UK), and 47% in CLCH (UK). IPSA and IRAS are both services with a good geographical coverage of titles, even though the latter covers only 56 titles. Of the three services specifically orientated to public administration, RPGP is restricted almost entirely to US and Canadian titles, and some 75% of RIPA coverage is of UK and North American titles; only Public Administration Abstracts has a good geographical coverage, although it is heavily concentrated on Asian (mostly Indian), North American and UK titles. None of these three services gives adequate coverage in depth of the other European literature, for which it is necessary to use BA, IPSA and IBSS. Anbar and CLCH give reasonable coverage of Western European and North American literature, but very few of their titles are relevant to the central area of public administration.

(vi) Coverage of whole subject field

A similar set of tests to those described in 2.6.2 (iii) is required ideally for public administration. However, demarcation of the potential universe of journals is even more difficult than in criminology - there appear to be many more of them, and they are scattered over a wider range of subjects. A restricted definition of the universe of journals could be used. It could be argued that those listed in Ulrich (14th edition) represent internationally the most important titles.[1] A list of 281 titles (periodicals and yearbooks) listed by the British Council (1964) could represent the most important materials for UK public administration and it could therefore be argued that services published in the UK should attempt to cover all or most of the titles. Fewer titles (87 current in 1970) are listed on CLOSSS, and these possibly constitute a satisfactory operational test group. Another approach would assume that titles covered by a secondary service, e.g. Public Administration Abstracts, provide a good operational measure of coverage for at least one segment of the universe, but this cannot of course be used as a basis for testing PAA. (In fact, overlap of PAA with other services is small - see Table 20).

Citation data from public administration source journals was not available in sufficient quantities to carry out a comparative test like that reported for criminology. Such a test would be likely to produce a different result. Because of the greater scatter of subjects and titles, the contrast between secondary service coverage and citation as a whole (rather than for any particular service) would be less than in criminology; this implies that any attempt to demarcate the universe of potential journals too narrowly could lead to gaps and inconsistencies in coverage.

With a variety of possible universes of primary journals and many secondary services available a great number of tests could be carried out without making it possible to draw very firm conclusions The only reasonably valid test would be against a comprehensive bibliography of public administration or certain aspects of it, and this did not prove practicable within DISISS. A study of existing services suggests that management decisions on coverage, which ultimately produce the patterns of overlap and relation between services, contain a high degree of arbitrariness, although a variety of empirical evidence might be used to justify one coverage decision rather than another.

Better decisions on coverage are likely to be possible only when totally new criteria are applied. Citation clustering may provide such a criterion, although the problem of uncited journals will remain. The total size of material available may influence decisions whether to index or abstract at all; Whatley (1966) questions whether much material is worth abstracting, but it may still need to be indexed.

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[1] Titles classified thus: general public administration (280); municipal government (174); postal affairs (45); public utilities (31); sanitary engineering (42); and urban planning (230).

5.3 Overlap between secondary services

Several useful sub-groupings of secondary services can be constructed from the main journal overlap matrices (Tables 20 - 23).

The overlap between six services particularly relevant to public administration is shown in Table 20. Two of the six (IBSS, IPSA) could equally be regarded as particularly relevant to political science, of which public administration is traditionally regarded as a sub-field. PAA can be considered as a key service, because of its size of coverage and obvious subject slant; it covers less than 16% of titles covered by IBSS and IPSA, although they both cover about 25% of PAA titles. These overlap figures cannot however offer any guidance to either the system designer or the searcher, since they do not reveal how many of the titles covered by IBSS and IPSA are relevant to public administration, nor how many relevant titles are not covered by PAA. Assuming that all journals covered by PAA are relevant to public administration, the 25% coverage of these titles by IBSS and IPSA suggests that they are very inadequate as services for public administration. Conversely, the 16% coverage by PAA of titles covered by IBSS and IPSA may or may not be a good performance, depending on the relevance of titles in IBSS and IPSA that are not covered by PAA. The tentative conclusion can however be drawn that up to six services would need to be used before anything approaching total coverage of public administration literature could be achieved.

Tables 21 and 22 show further sub-groupings of services relevant to public administration published in the UK and the USA. Many of the points raised in the previous paragraph apply. In the UK, the Index to Periodical Articles shows overlaps of between 30% and 65% on four services. Apart perhaps from LOGA, all the rest had low overlap on other services. Four services (RIPA, QBGLC, LOGA and Focus) were established to serve local needs, and two (BHI and RI) are fringe public administration. No national

TABLE 20

OVERLAP IN JOURNAL COVERAGE BETWEEN SECONDARY SERVICES SPECIFICALLY RELEVANT TO PUBLIC ADMINISTRATION

Service (no. of journals covered)	BIIAP		IBSS		IPSA		PAA		RIPA		RPGP	
	n	%	n	%	n	%	n	%	n	%	n	%
BIIAP (69)			37	53.6	28	40.6	11	15.9	5	7.2	2	2.9
IBSS (554)	37	6.7			269	48.6	89	16.1	24	4.3	29	5.2
IPSA (346)	28	8.1	269	77.7			84	6.6	24	6.9	29	8.4
PAA (331)	11	3.3	89	26.9	84	25.4			26	7.9	52	15.7
RIPA (54)	5	9.3	24	44.4	24	44.4	26	48.1			19	35.2
RPGP (316)	2	0.6	29	9.2	29	9.2	52	16.5	19	6.0		

To be read as follows: BIIAP covers 37 of the 554 journals covered by IBSS (i.e. 6.7%)

TABLE 21

OVERLAP IN JOURNAL COVERAGE BETWEEN SECONDARY SERVICES RELEVANT TO PUBLIC ADMINISTRATION PUBLISHED IN THE UK

Service (no. of journals covered)	BHI		Focus		IPA		LOGA		QBGLC		RI		RIPA	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
BHI (364)			8	2.2	33	9.4	11	3.0	5	1.4	16	2.7	10	2.7
Focus (39)	8	20.5			25	64.1	19	48.7	7	17.9	3	7.7	4	10.3
IPA (305)	33	10.8	25	8.2			44	14.4	18	5.9	12	3.9	16	5.2
LOGA (94)	11	11.7	19	20.2	44	46.8			6	6.4	11	11.7	8	8.5
QBGLC (30)	5	16.7	7	23.3	18	60.0	6	20.0			1	3.3	3	10.0
RI (111)	10	9.0	3	2.7	12	10.8	11	9.9	1	0.9			1	0.9
RIPA (54)	10	18.5	4	7.4	16	29.6	8	14.8	3	5.6	1	2.7		

TABLE 22

OVERLAP IN JOURNAL COVERAGE BETWEEN SECONDARY SERVICES RELEVANT TO PUBLIC ADMINISTRATION PUBLISHED IN THE USA

Service (no. of journals covered)	ABC		PAIS		PL		RPGP		SSHI	
	n	%	n	%	n	%	n	%	n	%
ABC (264)			95	36.0	38	14.4	47	17.8	46	17.4
PAIS (992)	95	9.6			71	7.2	129	13.0	50	5.0
PL (204)	38	18.6	71	34.8			60	29.4	11	5.4
RPGP (316)	47	14.9	129	40.8	60	19.0			54	5.4
SSHI (203)	46	22.7	50	24.6	11	5.4	17	8.4		

TABLE 23

OVERLAP IN JOURNAL COVERAGE BETWEEN FOUR POLITICAL SCIENCE SECONDARY SERVICES

Service (no. of journals covered)	ABC		BA		IBSS		IPSA	
	n	%	n	%	n	%	n	%
ABC (264)			187	70.8	149	56.4	168	63.6
BA (2073)	187	9.0			492	23.7	318	13.4
IBSS (554)	149	26.9	492	88.8			269	48.6
IPSA (346)	168	48.6	318	91.9	269	77.7		

service serving the whole discipline has been designed, although IPA comes nearest to it. Any rationalization would have to take account of the local needs and preferences to which the existing services were evidently developed to respond.

The sub-group of services published in the USA (Table 22) illustrates further the problems faced in any attempt at rationalization. There are three types of service: PL and RPGP both deal with (different) specialist fields within public administration; the contents listing service ABC is concerned with political science in general; and thirdly, PAIS and SSHI are more general services, with PAIS fairly closely related to public administration (covering 41% of titles in RDGP).

All of the services cover different areas, serve different functions and are aimed at different audiences. While they could probably all be improved in one way or another, the only coordination or cooperation that there could be between them would be in the common use of references.

The last example is of four political science services (Table 23). The four services provide a contrast to the other examples discussed because relatively higher overlap values are found. Furthermore, all the services are known to a greater or lesser extent internationally. The services are all different in nature: (ABC is a contents list; IBSS, an annual bibliography, with a long time lag; IPSA, an abstracting service suitable for current awareness; BA, an abstracting service with wide coverage). Again, one can see scope for cooperation, but rationalization would involve a reappraisal of objectives and functions.

5.4 Performance of individual secondary services

Details of each of the secondary services analysed are given in Table 14. Data on overlap in journal coverage is taken from Tables 20-23. All overlap figures given relate, except where otherwise stated, to the overlap by the service in question on other services; e.g. PAIS covered 36% of journals covered by ABC.

(a) Bulletin Analytique de Documentation Politique, Économique et Sociale Contemporaine (BA)

This abstracting service covered the largest number of journals - 2073 - though it was by no means the largest in terms of number of entries (4571 - little more than 2 per journal on average). It had the best coverage of the 64 most frequently covered journals, and failed to cover only one of the 21 most frequently covered journals (PAA was the only service to cover all 21). Some 61% of the journals it covered were covered by no other service, although other services had higher proportions (RI with 67%, CLCH with 70%, BHI with 72%, and APAIS with 90%). Not unexpectedly, the overlap between BA and some other services was high; it covered over 88% of journals covered by BIIAP, IBSS and IPSA. It had low overlap on local services and some English language services (e.g. CLCH, LOGA, APAIS, Focus, QBGLC, RPGP, RI, BHI and Anbar). However, as noted above, its depth of coverage of journals was very low, and its apparent good performance may be misleading, unless its selection was exceptionally good. This is borne out by the study of article coverage (see Table 24).

(b) Public Affairs Information Service Bulletin (PAIS)

PAIS indexed 992 journals in 1970 and had far more entries than any other service (largely because it covered weeklies and monthlies). In relation to its size, its coverage of the most frequently covered journals was poor - it ranked 6th for both the 'top 21' and the 'top 64' journals, but some of the top journals not covered were sociology. Some 52% of the journals indexed were covered by no other service. The greatest overlap recorded was on RIPA, PAIS covering 52% of the journals covered by RIPA; in contrast, it had only 2% (8 out of 346) of the titles covered by IPSA, although with the political science current awareness service (ABC) the overlap was nearly 36%. This would suggest that PAIS is not heavily orientated in its coverage to research journals. A similar service produced in the USA in the public affairs field (RPGP) is overlapped 41% by PAIS, but RPGP overlaps PAIS by only 13%.

(c) Australian Public Affairs Information Service (APAIS)

This service limits itself very largely to the Australian literature, and covers a very broad field in the pure and applied social sciences. Its format is very similar to that of BHI and PAIS. In 1970 869 journals were covered, but only 4 of these were within the 'top 64'; these 4 accounted for only 0.1% of all journals covered by the services analysed. *APAIS* was included in the sample because 'public affairs' were expected to include public administration, though it is obviously very wide ranging and also includes education, trade and commerce, and economic affairs. In fact, 90% of the titles covered are covered by no other service; in clustering terms *APAIS* is the most isolated service. The overlaps with the other services are all less than 10%, even on the services covering less than 100 journals. *APAIS* would clearly not be used as a substitute for any other service considered relevant to public administration, but could well be useful as a supplement to other services, particularly if material relating to Australia was required.

(d) *International Bibliography of the Social Sciences* (*Political Science*) (*IBSS*)

IBSS is an indexing service. Its very long time lag in entry of material is partly due to delays in publication and partly because only one issue is published per year. Apart from *BA*, which has an exceptionally large coverage of journals, IBSS is the largest research-orientated service in terms of titles covered. It is presumably intended mainly for retrospective search purposes and aims to cover the most significant literature published in the world. Its specific coverage of public administration is limited to a fairly short section of the classified sequence of index entries, but its wide coverage of literature in related fields would be appreciated by some researchers in such topics as comparative government and administration. *IBSS* covered 554 journals altogether, 17 of them in the 'top 21', and 55 in the 'top 64'. Considering its size, it is perhaps remarkable that it covers only 67 titles (12% of its coverage) that are not covered by any other service. Only *IPSA* and *ABC* have a lower proportion of once-covered journals. This suggests that these services confine themselves pretty rigidly to the central area of political science, and also that politics journals are covered widely by many other secondary services in the sample. *IBSS* has a high overlap on the other politics services, *ABC* (56%) and *IPSA* 978%), and also on some of the services with a special bias to public administration, *BIIAP* (54%), *IRAS* (55%) and *RIPA* (44%). Overlap on *PAA*, the main abstracting service devoted to public administration, is only 27%. *BA*, however, overlaps *IBSS* by 89%.

(e) British Humanities Index (BHI)

BHI is comparable to SSHI, APAIS and PAIS in that it is concerned with the publications of our country, and like them it is useful for retrospective searching as well as current awareness, although it appears less frequently (4 times a year) than APAIS and PAIS. However, it is more orientated to the humanities than the other 3 services, and the social sciences take second place. Most of the material it covers is British in origin, with small amounts from the USA, Eire and Australia. Its value to public administration appears to be very limited. BHI covered 364 journals in 1970, but only 6 of the 'top 21' and 18 of the 'top 64'. Some 72% or 262 journals were covered by no other service. On 15 out of the 20 services analysed the amount of overlap was less than 10% and in no case was it greater than 21% (Focus). BHI does not offer the user in either politics or public administration a very good alternative service, but may supplement other services usefully for British material.

(f) International Political Science Abstracts (IPSA)

IPSA is one of the quite large group of services which covered between 200 and 350 journals in 1970. IPSA concentrates almost entirely on achieving good coverage of one (fairly large) subject area. It gave good coverage of the 'top 21' and the 'top 64' journals (19 and 56 titles covered respectively). There were very few journals for which it provided unique coverage; it is similar in this respect to IBSS and ABC. With these three services political science appears to be well provided with secondary literature - an annual retrospective bibliography, a two-monthly abstracting journal, and a rapid page listing service for current awareness. Although overlap between the three services exists, certainly it is no higher than 78% (IBSS on IPSA). All three services give a good coverage of the more important public administration material; this is quite important, because PAA, which is published in India, does not have the same wide distribution to users interested in public administration. There are varying degrees of overlap on the other services, as can be seen from Tables 20 and 23; the lack or very low extent of overlap on Anbar, CLCH, APAIS, QBGLC and RI is not surprising.

(g) Public Administration Abstracts (PAA)

This service, published in India, is the only one with a wider than local audience which is specifically orientated to public administration. It covered 331 journals in 1970, including all of the 'top 21' journals, and 55 of the 'top 64' journals; these 55 journals represented 17% of the total coverage of the service. PAA covered 120 journals (36% of its total coverage) not covered by the other services. The amount of overlap on other services tends to be low, even on the politics services: ABC (28%), IBSS (16%) and IPSA (24%). The largest overlap was not surprisingly on RIPA (48%). The overlaps of the political science services on PAA are as follows: ABC (22%), IBSS (27%) and IPSA (25%). Clearly, political science services are deficient in their coverage of the bulk of public administration literature, as represented by the coverage of PAA. The overlap of the other services, which are related, however distantly, to public administration, is similarly low, although many of them cannot be fairly compared because they have one third or less of the coverage (QBGLC, RIPA, Focus, LOGA).

(h) Recent Publications on Governmental Problems (RPGP)

Like PAA, this service has a fairly definite focus on public administration, but its distribution is largely limited to the USA and it is designed for rapid current awareness. In 1970 it covered 316 journals, of which 14 were in the 'top 21', and 29 in the 'top 64'. 41% (129) of the titles it covers are unique. Its greatest overlap was on RIPA (35%); it also had a large overlap on PL (29%) - the slant to the personnel literature representing a specialism within the practitioner rather than the research area of public administration. The overlap on PAA is quite small (16%); as both services are of comparable size, this presumably means that RPGP is orientated both to US domestic literature and to some subjects peripheral to public administration. PAA overlaps RPGP by only 17% and PL overlaps RPGP by 18.9%; the largest overlap on RPGP is by PAIS (41%). PAIS and RPGP together have a substantial affinity with the area loosely called 'public affairs'.

(i) Index to Periodical Articles (Department of the Environment) (IPA)

Produced by the central British government department responsible for local government, this service covers, as well as public administration, architecture and planning. It has a wide distribution to libraries in the UK. It covered 305 journals in 1970, but only 9 of those were in the 'top 21', and 17 in the 'top 64'; the main reason is that many of the more 'academic' journals were not covered. Nearly half the journals covered (150) were unique to IPA. There was an overlap of 47% on LOGA (a UK-produced service orientated to local government) and even higher overlaps on other similar services (64% on Focus and 60% on QBGLC). Overlap on RIPA was fairly low (30%). The overlap of other services on IPA tended to be relatively low (below 20%); RIPA covered 5% of its titles and LOGA 14%, while BA (the French indexing service) covered 16%, the size of this overlap being due to its very large total coverage.

(j) ABC Pol Sci [Advance Bibliography of Contents. Political Science] (ABC)

In 1970 this service covered 264 journals, including 19 of the 'top 21' and 56 of the 'top 64'. The service is designed for current awareness, and would serve as a complement to RPGP for users in the USA; actual overlap between these two services being less than 20%. ABC covers all the specifically public administration journals in the 'top 64'. Only 26 titles were unique to ABC (10% of its total coverage). ABC had a 47% overlap on IPSA, 43% on RIPA and 39% on IRAS. The overlap on BIIAP was 29% and on SSHI 23%. The overlap of other services on ABC - an indication of the extent to which they could provide an alternative coverage - was greatest in the case of BA (71%). Similar values for IBSS and IPSA were 56% and 64% respectively; SSHI had only 17% overlap on ABC.

(k) Personnel Literature (PL)

Like IPA this service is produced by a government body, though in this case it is American rather than British. In 1970 the service covered 204 journals, including 13 of the 'top 21', and 17 of the 'top 64'. It covered 82 titles (39% of its coverage) uniquely. Personnel administration is not close to the central area of public administration research, but is an important speciality, particularly in the practitioner areas of the field. PL covered all the main public administration journals in the 'top 64' journals. The largest amount of overlap between PL and the other services was on IRAS (20%) and RPGP (19%). PAIS had an overlap of 35% on PL; other services with a fair amount of overlap on PL were PAA (23%), RPGP (29%), ABC (19%) and BA (25%).

(l) Social Sciences and Humanities Index (SSHI)

This service covered 203 journals in 1970. In format, it is similar to PAIS. It covered 11 of the 'top 21' journals and 33 of the 'top 64'; and ranked 7th in coverage of the latter; PAIS was only one rank higher, but it covered 14 more titles than SSHI. Some 90 (47%) of the journals covered by SSHI were covered by no other service, but many of these were in the humanities. The overlap between SSHI and most of the other services was well below 10%, except on RIPA (15%), PAA (15%), IPSA (14%), IBSS (11%), and ABC (17%). Services with substantial overlaps on SSHI were ABC (23%), BA (42%), IBSS (30%), IPSA (23%), PAIS (25%) and PAA (25%). The UK service most like SSHI is BHI, which overlapped the former by only 15%.

Since 1974 this service has been divided into Social Sciences Index and Humanities Index.

(m) Current Literature on Community Health (CLCH)

CLCH is, like IPA, produced by a British government department library. Community health and social welfare are not central to public administration, but may be of special interest to some public administrators. The fringe status of community health is reflected by CLCH's coverage of only 2 of the 'top 21' and 4 of the 'top 64' journals (including New Society, Local Government Chronicle and Public Administration). The service covered 174 journals in 1970, and not surprisingly 121 (70%) of these were covered by no other service. Although a high level of overlap between CLCH and other services would not be expected, there was some overlap on the other British services - RIPA (11%), LOGA (17%), QBGLC (23%), and Focus (36%). The overlap of other services on CLCH was below 10%, and mostly below 5%; the exception was IPA, which overlapped CLCH by 12%.

(n) Anbar

This service is designed primarily to meet the needs of management and business; the closes it comes to public administration is in the administrative aspects of management. None of the main public administration journals is covered, except the International Review of Administrative Sciences. It covers virtually no literature in politics and sociology. In 1970 coverage amounted to 150 journals, of which 88 (56%) were covered by no other journal. Only 1 of the 'top 21' journals was covered and 5 of the 'top 64'. The overlap of Anbar on the other services was usually well below 10%, except for two other UK-produced services, one being Focus on which it had an 18% overlap, and the other being RIPA (17% overlap). The overlap of other services on Anbar was generally low, although there were exceptions like BA (13%), PAIS (15%), PL (11%), PAA (10%) and RPGP (11%).

(o) Research Index (RI)

RI is, like Anbar, orientated to users in business and commerce. In 1970, it covered 111 journals of which 74 (67%) were covered by no other service. Services like RI, Anbar, LOGA, and QBGLC are not specifically concerned with giving a special documentation service to public administration, but, in the UK at least, they may form part of the range of services which users might encounter in public and local government libraries. (This is one good reason for including them in this study). Coverage by RI of the most significant journals in public administration was poor - 2 of the 'top 21', and 3 of the 'top 64'; in this respect LOGA and Focus had a slightly better performance, and QBGLC a worse one. The overlap of RI on the other services was less than 4%, except in the case of LOGA (12%) and Focus (8%). Overlap of other services on RI was not much greater, except for BA (12%), IPA (11%), and PAIS (8%).

(p) LOGA (Local Government Annotations) (LOGA)

This service covered 94 journals in 1970, of which 24 (26%) were not covered by any other service; it covered 4 of the 'top 21' and 7 of the 'top 64' journals, and within the 'top 64' confined itself to primary journals published in the UK. LOGA had a 49% overlap on Focus (a very similar service for UK local government), and a 20% overlap on QBGLC. There were overlaps of 15% on RIPA, 14% on IPA, 10% on RI, and 9% on CLCH. The overlap of other services on LOGA included 16% for PAIS, 20% for Focus, 11% for PAA, 12% for BHI, 17% for CLCH and 47% for IPA.

(q) Bulletin de l'Institut International d'Administration Publique (BIIAP)

Together, IRAS, RIPA and BIIAP form a group of minor secondary tools specifically orientated towards public administration. In 1970 BIIAP covered 39 journals of which 3 were in the 'top 21' and 9 in the 'top 64'; it did not however index Public Administration (UK) in 1970. It covered 11 journals (16% of its total coverage) which were not covered by any other service. Overlap of BIIAP on other services was low (usually well below 5%), except in the case of IBSS (7%), IPSA (8%), IRAS (11%) and RIPA (9%). In some cases the overlap of other services on BIIAP was substantial - BA (71%), IBSS (56%), IPSA (64%), PAIS (36%), and PAA (28%). However, the large overlap does not necessarily mean that the overlapping service is 'better'; it may be large, like BA, and hence have a lot of noise, or infrequently published, like IBSS, or not widely available, like PAA. Some users may find the BIIAP service of value because it is small and selective, and comes as part of a primary journal to which they may have regular access.

(r) International Review of Administrative Sciences (IRAS)

This service is comparable to BIIAP; it is small, selective and comes as part of a regular primary journal. In 1970 it covered 56 journals, of which 10 were in the 'top 21', and 12 in the 'top 64'; another 14 journals (26%) were covered by no other service. The greatest overlap was on RIPA (20%). The overlap of other services on IRAS, eg PAA (27%) and RIPA (20%), was not perhaps as great as might be expected, but some other services overlapped it substantially - ABC (39%), BA (64%), IBSS (55%), and IPSA (45%).

(s) Royal Institute of Public Administration - Accessions List (RIPA)

In 1970 RIPA covered 54 journals; apart from PAA, it represents the only separately issued bibliographical service that could be specifically identified with public administration. RIPA covered 15 of the 'top 21' journals identified, and 26 of the 'top 64', and it indexed 8 journals which were not covered in other services. The overlap of RIPA on other services was low, even when comparing services of roughly similar size - IRAS (20%), Focus (10%) and QBGLC (10%). Overlap on RIPA by other services included: BHI (19%), ABC (43%), BA (54%), IBSS (44%), IPSA (44%), IPA (30%), IRAS (20%), PAIS (52%), PAA (48%), and RPGP (35%).

(t) Focus (Focus) and Quarterly Bulletin of the Greater London Council (London Research Abstracts) (QBGLC)

These two services complete the study sample of secondary services. Both are produced by local government authorities in the London area. QBGLC has a more public audience because it is published within a primary news journal; Focus has a more limited circulation.

In 1970 QBGLC covered 30 journals, only one of which was in the 'top 64', and of which 4 were covered by no other service. With coverage on this scale, overlap figures are of little value; there was however an 18% overlap on Focus.

Focus covered 39 journals in 1970, of which 3 were in the 'top 21' (Public Administration (UK), Administrative Science Quarterly and New Society) and 4 in the 'top 64'; only 1 journal was covered by no other service. There was a 20% overlap on LOGA and a 23% overlap on QBGLC.

The overlap on these services by other services was not substantial. The overlap on Focus by CLCH was 36%, by QBGLC 18%, by IPA 64%, by BHI 21%, and by LOGA 49%. The overlap on QBGLC by IPA was 60%, by BHI 17% and by CLCH, PAIS and Focus 23%.

5.5 Coverage of journal articles by secondary services

As with criminology, a supplementary check of coverage by secondary services was made against individual articles. The three highest ranked primary journals in the study of journal coverage (see 5.2 (ii)) were chosen for the study. Two of the journals, Public Administration and Public Administration Review, are national professional journals specializing in the subject area; the third, International Review of Administrative Science, covers a broader subject area.

Twenty-eight out of 112 articles (every fourth article, starting with the first) in the 1970 issues of the three primary journals formed the sample to test article coverage and time lag by secondary services. International Review of Administrative Science contributed to the sample 7 articles, Public Administration 6 articles, and Public Administration Review 15 articles; the larger number of articles for PAR was a result of greater publication frequency and a tendency to publish fairly short articles. A list of the articles chosen is given in Appendix E2.

Nine secondary services from the journal coverage and overlap study were chosen, according to availability: *ABC Political Science*, *Bulletin Analytique de Documentation ...*, *Index to Periodical Articles*, *International Bibliography of the Social Sciences - Political Science*, *International Political Science Abstracts*, *Public Affairs Information Service Bulletin*, *Personnel Literature Index*, *Public Administration Abstracts*, and *Recent Publications on Governmental Problems*.

As with criminology, the checking of articles in the secondary services was hindered by poor author and subject indexing; it is therefore not possible to be absolutely certain that all possible articles were found.

The results of the study of coverage of articles in primary journals by secondary services are given in Tables 24 and 25.

Of the 7 articles from *International Review of Administrative Sciences*, 2 services (*ABC* and *PAA*) gave complete coverage; these services gave the best coverage of the other two primary journals as well, though for *Public Administration Review* *BA* gave as good coverage as *PAA*. The overall level of coverage was not very different for all three primary journals.

ABC covered all the articles sampled and its performance was approached only by *PAA*. No other service covered as many as half the articles, though *RPGP* and *BA* covered 46% and 43% respectively. Both *IBSS* and *IPSA* gave poor coverage, but these two services are not exclusively concerned with public administration. Although *PAA* is the main abstracting journal in the field, for two journals it gave incomplete coverage, in one case missing 6 out of 15 articles.

From a test with such a small sample it would be dangerous to draw too many conclusions, but the test does show how unsafe it is to rely on any service for complete coverage. The fact that *PAA* is specifically orientated to public administration and covers many journals needs to be taken together with its imperfect coverage of some at least of those journals. The other services orientated to public administration showed a worse performance. *ABC* - a general political science service - may have scored highly because it does not attempt selection from the journals it covers.

TABLE 24

COVERAGE OF ARTICLES IN PRIMARY JOURNALS BY SECONDARY SERVICES IN PUBLIC ADMINISTRATION

Primary journals	No. of articles in sample	Secondary services									Actual coverage ÷ potential coverage*	
		ABC	BA	IPA	IBSS	IPSA	PAIS	PLI	PAA	RPGP	n	%
International Review of Administrative Sciences	7	7	1	0	2	0	3	1	7	4	25/63	39.5
Public Administration	6	6	1	3	1	2	1	1	5	2	22/54	40.7
Public Administration Review	15	15	9	3	2	4	8	4	9	7	61/135	45.2
TOTAL n	28	28	11	6	5	6	12	6	21	13	108/252	42.9
%	100	100	39	21	17	21	43	21	77	46		

* Total no. of entries in all services ÷ total no. of entries possible in all services

TABLE 25

FREQUENCY OF COVERAGE OF ARTICLES BY SECONDARY SERVICES IN PUBLIC ADMINISTRATION

No. of services in which each article is included	Articles	
	n	%
0	0	0
1	0	0
2	2	7
3	6	21
4	15	54
5	4	14
6	1	4
TOTAL	28	100

6.0 TIME LAG BETWEEN ORIGINAL PUBLICATION AND APPEARANCE IN SECONDARY SERVICES

6.1 Problems of studying time lag

The opportunity was taken to use the same samples of articles used for supplementary tests of coverage (see sections 4.5 and 5.5) to examine the time lag between first publication and entry in secondary services. Since the samples were small, the results are no more than indicative.

A number of factors can cause delay between the publication of a primary article and its listing in a secondary service. For example, the primary and secondary journals may be published in different countries; the form of listing, eg. abstracting, detailed subject indexing and classification, may cause delay; secondary services vary in frequency of publication; and services may be subject to administrative changes, eg. no parts of Crime and Delinquency Abstracts were actually published during 1970.

The dates of publication of the primary journal and the secondary service must also be considered. The date on the title-page may not represent the month of mailing to subscribers; delays occur in posting and mail strikes complicate the issue further. In this study it was necessary then to standardize dates of publication and to consider time lag in relation to the availability of primary and secondary sources in British libraries. For this reason dates of receipt of the criminology journals in the library of the Cambridge University Institute of Criminology were taken as the effective dates of publication in the UK; for Psychological Abstracts and Sociological Abstracts, the dates used were those of receipt in Cambridge University Library. Had the exercise been carried out in the USA a different set of results would have emerged; and still different results if it had been carried out in France or Germany.

6.2 Criminology

From Table 26 the performance of the services may be compared. It can be seen that primary journals published in the US appear more quickly in US secondary sources, and that services such as the British Journal of Criminology's listing of current contents give a speedy listing of both UK and US primary sources. Abstracts on Criminology and Penology has the lowest range of delay,

TABLE 26

DELAY BETWEEN RECEIPT BY BRITISH LIBRARIES OF PRIMARY JOURNALS IN CRIMINOLOGY AND APPEARANCE OF ARTICLES IN SECONDARY SERVICES

Primary journal	Mean delay in months before coverage in:							
	ACP	BJC	CDA*	CDL	JCL	LS	PA	SA
BJC	5	nc	27	14	nc	16	11	10
CD	4.5	5	21	16	nc	nc	16	nc
RDPC	8.5	nc	nc	9	nc	15	nc	nc
AC	8	nc	12	nc	nc	4	nc	nc
RIC	10	nc	24	nc	nc	16	nc	nc
JCL	4	5	nc	9	nc	16	11	29
Range (months)	4-10	5	12-27	9-16	-	4-16	11-16	10-29

nc = not covered

* These delays are longer than for the other secondary services because no issues of CDA were published in 1970, the date of publication of the articles checked.

4 - 10 months, with the French-language journals taking longest - this service also yielded 59% coverage of the sample. *Liste Semestrielle*, which yielded 63% coverage, had an average lag of 15.5 months, largely due to its in frequency of publication. Neither *Psychological Abstracts* nor *Sociological Abstracts* performed well in comparison with the specialised services.

6.3 Public administration

The data on time lag is summarized in Tables 27 and 28. The main conclusions drawn from Table 27 are that the prompt appearance of a primary journal article in a secondary service is greatly aided by the frequent publication of the service. The semi-monthly service *RPGP* has a good record on time lag, as does *PLI*, published 12 times per year, but these results are affected by the fact that the time lag figures for *PLI* and *RPGP* do not take into account the delay between their stated appearance and their receipt in libraries; instead values were computed from their publication dates. The type of document processing also affects time lag; the systematic indexes (*PAA* and *IBSS*) perform less well than straightforward title indexes (*PLI* and *RPGP*). However, when the overall effectiveness of a service is considered the time advantage may not be so important, although good current awareness necessitates low time lag. The service *IPA* manages to produce brief abstracts and keep time lag down to between 3 to 5 months. The variations in range can be attributed largely to the better performance of secondary services for national journals; for example, *ABC Pol Sci* covers all the articles in *Public Administration Review* (US) within 5 months, but 8 months was required to cover all the articles in *International Review of the Administrative Sciences* (Belgium). It was impossible to obtain information for *PAIS* due to the practice of discarding individual issues once the cumulative volume had been received.

Table 28 shows that full coverage of the sample of articles was obtained after 25 months. Some 50% of the articles were covered within 5 months. Three services in particular were largely responsible for the 'long tail': *IBSS*, *IPSA*, and *PAA*.

TABLE 27

DELAY BETWEEN RECEIPT BY TWO UK LIBRARIES OF PRIMARY JOURNALS IN PUBLIC ADMINISTRATION AND APPEARANCE OF ARTICLES IN SECONDARY SERVICES

	Mean delay in months before coverage in:							
	ABC	BA	IPA	IBSS	IPSA	PL	PAA	RPGP
Mean	4	5	4	22	12	2	13.5	2
Range (months)	2-8	4-7	3-5	19-25	10-14	0-3	10-22	0-6

It was not possible to obtain data on receipt of issues of PAIS in library for 1970 because when study was carried out (1974) the monthly issues had been discarded and replaced by the annual cumulation.

TABLE 28

DISTRIBUTION OF DELAY TIMES FOR COVERAGE OF ARTICLES BY PUBLIC ADMINISTRATION SECONDARY SERVICES

Delay (months)	Articles covered		Delay (months)	Articles covered	
	N	cum %		N	cum %
<1	8		10	4	75
1	0		11	5	
2	7	25	12	1	
3	14		13	7	
4	12	50	14	3	
5	12		15-18	6	
6	9		19-21	2	
7	1		22-24	3	
8	2		25	1	100
9	0				

(N = 86 - the total number of times the 28 articles in the sample were covered by the secondary services).

7.0 JOURNAL CLUSTERS IN CRIMINOLOGY AND THEIR RELATIONSHIP TO SECONDARY SERVICES

7.1 Citation clustering techniques and their application to the study of secondary services

In addition to the overlap studies, a test was made of the coverage of secondary services in criminology by comparing it with clusters of journals derived from analyses of citation data.

Various clustering techniques are available for grouping journals. The method chosen by DISISS was non-hierarchical, based on a SCICON algorithm (Bath University, 1973). It is usual to produce independent groups of journals (ie not overlapping), as well as overlapping groups. Both types are of potential interest for the rationalization of secondary services. The most obvious application is to compare the clusters derived from this procedure with the journals actually covered by secondary services, and to identify groups of journals covered poorly, or not at all, by existing services. The study of criminology citations showed groups of journals that were receiving little or no coverage by existing services.

Some of the technical problems involved in clustering have been discussed elsewhere (Bath University, 1973 and 1974). A particular problem relates to the density of citations available (and therefore, indirectly, to the selection of sources from which citations are taken). As wide a range of citations as possible should be collected for any particular subject or group of users. For example, if the citation patterns of physicists are to be studied, the sources used should include journals that form the main body of physics, and also peripheral journals (which may of course be the core journals of other disciplines). This makes it possible for clusters to be developed in sub-areas of the subject, as well as in interdisciplinary, new, and peripheral areas. If the selection of source journals is restricted, the chance of findings groups of journals which would otherwise have gone unidentified (groups which may be especially interesting for coverage policies) is reduced.

The objective of clustering is to provide valid groupings of journals, preferably clearly defined (in terms of existing classifications, and user groups); the clusters should also be reliable (ie similar studies must provide basically the same results. For this, a substantial amount of citation data is ideally required (DISISS had some 50,000 citations available), with not many citations to journals completely outside the discipline. This condition can be difficult to fulfil, because a typical distribution of citations has a long 'tail' of infrequently cited journals (Bath University, 1974), and some of these are likely not to be within the prescribed subject boundaries. However, with a large enough collection of data the tail of the frequency distribution can be omitted, and clustering techniques applied to the remainder; in this way, reliability and validity of clusters are increased.

For any given set of citation data it is possible to provide a variety of clusters, depending upon the cluster method used, and also upon the degree of resolution of clusters demanded. It is helpful to consider some of the main types of clusters available; and then to show to what extent the results of clustering can be meaningfully applied to the assessment of secondary services.

First, it is possible to produce from the same citation data a smaller or larger number of clusters. The larger clusters would represent 'superclusters' and the smaller clusters 'subclusters'; judgment then has to be used as to which pattern to use for assessing the coverage of secondary services. It might be considered that a subject is composed of, say, three major fields; the citation data might well group naturally into three clusters, or they might not. In the latter case, an attempt could be made to derive three clusters, but this might be somewhat artificial, and it would probably be better to reconsider the traditionally established subject boundaries.

Where overlapping is allowed, the clusters may say something about the nature of the subject field. If two clusters are identified with a large overlap, this suggests that the data should be reanalysed to see if a larger number of clusters with a higher degree of independence emerged. If the resulting clusters still had a common overlap, this would indicate the existence of a central part of th discipline. This approach might offer a method for defining the core area of a subject.

At each stage in clustering it is desirable to compare the results with the existing coverage patterns of secondary services. The most likely findings are: (a) existing secondary services, by and large, group journals together in a way similar to the citation clusters (b) some citation clusters are not covered by existing secondary services (eg a sub-field of a major discipline or perhaps a new field of research). Where there is a good match between clusters derived from citation data and the groups of journals covered by secondary services, confidence in the value of the secondary services is enhanced. If secondary services cover groups of journals which users themselves group together, there is good reason to suppose that these services are providing relevant bibliographical control.

When groups of journals related by citation data are found that are not covered by secondary services, or that are thinly spread across a very large number, the implications for rationalization are fairly clear. An obvious gap in the coverage of the secondary services could be rectified, either by a new service or by increasing the coverage of existing services. Conversely, if a secondary service covers journals that do not appear in clusters derived from citation analyses, these journals may need to be examined for their true relevance to the subject field. If citation data could be monitored from time to time to assess the extent to which new groups were identifiable, whether they arise from the creation of new journals, or regrouping of existing journals, or both, appropriate modifications to secondary service coverage could be made.

Difficulties occur where it is not possible to find clusters of journals which closely match the groups of journals covered by secondary services, and where it is not possible either to find groups of journals which are neglected by secondary services. The difficulty stems in part from the nature of the clustering techniques. Statistically, they are such that a large number of different types of cluster are potentially available from the same set of data. Criteria of consistency, validity and definitiveness can be statistical decisions rather than subject related ones. For example, it is possible to produce clusters that are independent, or overlapping, and at the same time account for most of the variance of the data. It would appear that some of the criteria for deciding upon the type and numbers of clusters are more relevant, from a subject angle, than others; a clustering experiment which produced very clearly defined clusters but which accounted for only about 50%, say, of the variance in the citation data would perhaps not be acceptable from a subject point of view, whereas a clustering experiment which produced less clearly defined clusters but accounted for (say) 90% of the variance would be acceptable.

7.2 Results of the criminology clustering study

The identity of clusters depends on the density of citation data used and the sampling of sources and citations; the performance of the clustering algorithm; and the human recognition and naming of the clusters, usually on the evidence of journal title names. Although the total number of citations analysed by DISISS was very large, the number relevant to smaller fields was not very great. No doubt, given a greater density of citation data, different and more valid patterns could be produced. The replication of experiments would be valuable; also, discarding peripheral source journals could result in more valid clusters. The algorithm used here appears to be reasonably efficient, when used with bibliographical data.

A cluster analysis of journal titles cited in a group of criminology source journals for 1970 identified about nine main groupings of journal titles. The journals found in the nine clusters are listed in Table 29. Clusters 1 to 5 were well defined by algorithm, whereas clusters 6 to 8b were poorly defined, in that the journals did not form clear clusters, but a large group with much overlap between clusters. The poor definition of the criminology cluster is partly due to the behaviour of the algorithm; it suggests that criminology journals do not cite one another strongly or cite much criminology at all, and that research undertaken by criminologists often draws heavily upon other fields, particularly psychology, psychiatry, law, sociology and social work. The journals in the criminology cluster 6 include titles which appear together at most levels of clustering; much the same feature is true of the police and law journals in cluster 7. In fact, cluster 6 contains as many social and general psychology titles as criminology.

The coverage by secondary services of journal titles in the 9 clusters is summarized in Table 30. In general, the coverage is poor. There tends to be better coverage of the smaller clusters. In no case does any one secondary service cover all titles in a cluster.

Although the coverage of all titles in clusters is poor, the coverage of some titles in a cluster presents a more encouraging picture. Journal of Criminal Law, Criminology and Police Science (JCLCPS) covers half of the police and law cluster 7 but nothing in the other clusters; since JCLCPS is usually confined to police and forensic matters, it would not be expected to extend its coverage to other clusters. Thus, the cluster patterns almost predict a service which actually exists: Three services, British Journal of Criminology (BJC), Crime and Delinquency Abstracts (CDA), and Crime and Delinquency Literature (CDL), cover some material in all but one or two clusters. The exceptions seem reasonable enough - BJC does not cover titles in the law or

TABLE 29

COVERAGE BY SECONDARY SERVICES IN CRIMINOLOGY OF JOURNALS IN RELEVANT CITATION CLUSTERS

CLUSTERS	SECONDARY SERVICES					
1. MEDICAL PSYCHOLOGY	ACP	BJC	CDA	CDL	JCL	LS
Acta Psychiatrica Scandinavica						
Acta Psychologica						
American Journal of Medicine						
American Journal of Psychiatry	X	X	X	X		
American Journal of Psychotherapy	X					
American Journal of Public Health						
Annals Internal Medicine						
Archiv Psych. Nervenkrank.						
Behavior Research and Therapy	X					
British Journal of Psychiatry	X	X		X		
British Journal of Psychology						
British Journal of Soc. & Clin. Psychol.	X					
British Journal of Social Psychiatry	X					
British Journal of Statistical Psychol.						
Bulletin of Narcotics (US/Fr)	X			X		X
Diseases of the Nervous System						
Electroenceph. Clin. Neurophysiol.						
Family Process						
Human Biology						
International Journal of Addictions	X	X		X		
Journal of Abnormal Social Psychology	X					
Journal of Nervous and Mental Diseases	X					
Journal of Applied Physiology						
Journal of Pharmacol. & Exper. Therapeutics						
Journal of Psychology		X				
Journal of Psychosomatic Research	X					
Journal of the American Medical Assoc.	X					
Lancet	X		X			
Nature	X					
New England Journal of Medicine						
Psychiatry		X	X			
Psychiatric Quarterly						
Psychosomatic Medicine						
Quarterly Journal of Studies Alcohol.	X					
TOTAL (34)	15	5	3	4	0	1
2. SOCIOLOGY	ACP	BJC	CDA	CDL	JCL	LS
Administrative Science Quarterly						
American Journal of Sociology		X				
American Political Science Review						
American Sociological Review	X	X		X		
Biometrics						
Journal of Educational Sociology						
Journal of Marriage and the Family						
Journal of Social Issues	X		X			
Journal of the Amer. Statist. Society						
Pacific Sociological Review						
Public Interest			X			
TOTAL (11)	2	2	2	1	0	0
3. LAW	ACP	BJC	CDA	CDL	JCL	LS
Harvard Law Review	X		X			
Minnesota Law Review				X		
Texas Law Review			X			
University of Pennsylvania Law Review			X			
TOTAL (4)	1	0	3	1	0	0

ACP	Abstracts on Criminology and Penology	CDL	Crime and Delinquency Literature
BJC	British Journal of Criminology	JCL	Journal of Criminal Law, Criminology and Police Science
CDA	Crime and Delinquency Astracts	LT	Liste Trimestrielle (INTERPOL)

TABLE 29 (cont.)

4. PSYCHOTHERAPY/PSYCHOLOGY		ACP	BJC	CDA	CDL	JCL	LS
American Anthropologist			X				
American Journal of Orthopsychiatry		X	X	X			
Child Development							
Comprehensive Psychiatry							
International Journal of Psychoanalysis							
Journal of Consulting Psychology							
Journal of Clinical Psychopathology							
Journal of Health and Social Behaviour							
Journal of Personality & Soc. Psychol.		X	X				
Law and Contemporary Problems				X			
Psychoanalytic Quarterly							
Psychoanalytic Review							
Psychoanalytic Study of the Child							
Psychological Issues							
Psychological Monographs							
Science		X					
Scientific American					X		
TOTAL	(17)	3	3	2	1	0	0

5. SOCIAL WORK		ACP	BJC	CDA	CDL	JCL	LS
Child Welfare		X			X		
Journal of Jewish Community Service							
Mental Hygiene		X	X				
Saturday Review				X			
Social Casework		X		X			
Social Work		X			X		
TOTAL	(5)	4	1	2	2	0	0

6. CRIMINOLOGY		ACP	BJC	CDA	CDL	JCL	LS
American Psychologist							
Annals (Journal of Natural History)							
British Journal of Criminology		X		X	X		X
Crime and Delinquency		X	X	X			X
Journal of Criminal Law, Criminol. & Police Sci.		X	X	X			X
Journal of Res. in Crime & Delinquency		X	X	X	X		X
Journal of Social Psychology		X					
New Society		X					
Psychological Bulletin							
Psychology Today					X		
Psychotherapy Research and Practice							
Social Problems		X	X		X		
Yale Law Journal			X	X	X		
TOTAL	(13)	7	5	5	5	0	4

7. POLICE AND LAW		ACP	BJC	CDA	CDL	JCL	LS
All England Law Reports							
Criminal Law Review		X	X	X	X		
International Criminal Police Review		X	X	X	X	X	
Journal of Forensic Science						X	X
Juridical Review							
Kriminalistik		X				X	X
TOTAL	(6)	3	2	2	2	3	2

8a. CLINICAL PSYCHOLOGY		ACP	BJC	CDA	CDL	JCL	LS
Behavioral Science		X					
International Journal of Psychiatry							
Journal of Clinical Psychology							
New Republic							
TOTAL	(4)	1	0	0	0	0	0

8b. MIXED FOREIGN JOURNALS		ACP	BJC	CDA	CDL	JCL	LS
Annales Internationales de Criminologie		X		X			X
Archivo di Psicol. Neurol. e Psichiat.							X
Federal Probati		X	X	X	X		
Revue de Sci. Crim. et de Droit Penal Comparé		X	X	X			X
TOTAL	(4)	3	2	3	1	0	3

ACP	Abstracts on Criminology and Penology
BJC	British Journal of Criminology
CDA	Crime and Delinquency Abstracts
CDL	Crime and Delinquency Literature
JCL	Journal of Criminal Law, Criminology and Police Science
LT	Liste Trimestrielle (INTERPOL)

TABLE 30

COVERAGE BY SECONDARY SERVICES IN CRIMINOLOGY OF JOURNALS IN RELEVANT CITATION CLUSTERS: SUMMARY TABLE

Clusters	No. of titles in cluster	Number and percentage of titles in cluster covered											
		ACP		BJC		CDA		CDL		JCL		LS	
		n	%	n	%	n	%	n	%	n	%	n	%
1. Medical Psychology	34	15	44	5	15	3	9	4	12	0	0	1	2
2. Sociology	11	2	18	2	18	2	18	1	9	0	0	0	0
3. Law	4	1	25	0	0	3	75	1	25	0	0	0	0
4. Psychotherapy	17	3	18	3	18	2	12	1	6	0	0	0	0
5. Social work	6	4	80	1	20	2	40	2	40	0	0	0	0
6. Criminology	13	7	54	5	38	5	38	5	38	0	0	4	31
7. Police and Law	6	3	50	2	33	2	33	2	33	3	50	2	33
8a. Clinical Psychology	4	1	25	0	0	0	0	0	0	0	0	0	0
8b. Mixed foreign journals	4	3	75	2	50	3	75	1	25	0	0	3	75

clinical psychology clusters, and CDA and CDL cover no journals in the clinical psychology cluster. The main secondary service in the field, Abstracts on Criminology and Penology (ACP), covers material in all clusters, including 15 out of 34 titles in the medical psychology cluster 1, but only 3 out of 17 titles in the psychotherapy cluster 4. This may not matter since services such as Index Medicus, Excerpta Medica and Psychological Abstracts exist. More serious is the inadequate coverage of titles in the criminology cluster 6, although the presence of at least one journal in this cluster might be challenged, as could the absence of others (eg Howard Journal), even allowing for the poor definition of this cluster. In view of this, the present results should be seen as no more than indicative, but sufficiently promising to justify studies in greater depth in particular areas.

Given a poor match between services and clusters, what can be done to improve matters? One possible solution would be to extend the coverage of ACP, which has the best or equal best performance and ignore the remainder, in all clusters but one (Law). Another would be to allocate clusters between services, so that one service concentrated on legal aspects, another on sociological and psychological aspects, and so on; but this would require machinery for close cooperation. Or some secondary services might cover selectively the whole field or particular subjects, leaving total coverage to one service. Or psychology could be deliberately excluded and left to medical and psychological abstracting services, since the psychology journals appearing in the clusters are only a small portion of all those that may have occasional articles relevant to criminology.

The chief value of the present clustering study is not as a definitive indication of desirable coverage, but as showing the range and nature of relevant literature, and suggesting new journals to be covered. It could also suggest that some journals need not be covered. However, to extend coverage beyond a certain point would add much more to the cost than to the performance of a service; while to substitute a journal in one of the clusters for a journal covered but not in the clusters might be merely to replace one fringe item by another. To attempt to cover all literature of potential relevance to criminology would require not only an enormous effort but an enormously large service.

8.0 COMMENTS AND CONCLUSIONS

Studies of overlap and coverage, especially of the rather unsophisticated type used here, have obvious limitations. They can give guidance as to what services have to be used by an individual to achieve reasonable coverage of a given subject area, and can indicate imperfections of coverage in particular services. They can demonstrate the user's problems, but not necessarily the producer's solutions. What morals can a producer draw from such studies?

Comparisons of the kind used in this study are somewhat unfair, in that the services compared have different objectives and audiences. A service may aim merely to notify persons practically involved in public administration of a few selected articles believed to be of relevance and interest to them; it may go further, and provide abstracts which either serve as substitutes for the full text or indicate which articles need to be read in full - such a service is the Quarterly Bulletin of the Greater London Council. Or a service may have as its objective the speedy notification of readily accessible items, like Recent Publications on Governmental Problems. It may try to cover comprehensively the literature of a given country in a particular field, like Australian Public Affairs Information Service. It may aim at selective coverage in a very wide field, like some of the services studied for coverage of public administration; it would obviously not be fair to judge IBSS purely by its coverage of public administration. A service may attempt to provide an 'archival' bibliography of significant publications in a subject, for retrospective searching, like IBSS. Ideally, the coverage of every service should be judged according to its objectives, if these can be identified. The attempt to identify objectives from the services themselves suggests that in some, perhaps many, cases they have not been clearly thought out, let alone specified. Whether the objectives themselves are sensible is another matter; for example, it would hardly be very wise to aim to serve prison officers with a comprehensive current abstracting service in criminology, nor to supply researchers with a few rudimentary references every six months. Thus, both the objectives of a service need to be examined, and the extent to which these objectives are met.

The various factors to be considered are set out below:-

Audience	Local National International	Practitioners Researchers

Currency	Current awareness - fast Current awareness - moderate Retrospective searching			
Level of Entry	Notification only (index entry) Indication of contents (annotated entry or abstract) Partial substitute for original (full abstract)			
Coverage	Broad Narrow	(between journals)	Selective Comprehensive	(within journals)

The total possible number of combinations of all these factors would amount to 216. This is a minimal figure, since coverage should be considered as a continuum rather than a distinct choice - for example it could be very broad, broad, moderate, narrow or very narrow, and the same applies to selectivity and comprehensiveness. In fact, some of the combinations can be quickly ruled out - for example, the two mentioned above. In particular, limits can be set on the range of services to be given to local users and to practitioners. Nevertheless, the range of possibilities is still wide, and the coverage that is desirable may be greatly affected by various combinations of other factors. For example, a selective service in public administration for local practitioners would require a different coverage from an equally selective service aimed at researchers throughout the world; and items chosen as of immediate interest would not necessarily, indeed probably not, be the same as those selected for an 'archival' bibliography.

Even within a given user group - say researchers - some users may prefer low noise (high precision), while others may accept a high noise level in order to obtain material on the fringes of their subject area. Again, they may have a bias towards literature in a given language (particularly if they are social scientists) or from a given country (eg public administrators in Britain probably have little interest in public administration in the Soviet Union).

The first question is whether coherent user groups can in fact be identified. In the case of practitioners, this is probably not difficult, because professions define their own user groups, such as social workers.

Research is however constantly shifting its boundaries - this is a fundamental means of growth and progress - and it is also a highly individual process. A promising way of identifying research user groups is by studying the relationships they establish among themselves - whom they read and cite, and who reads and cites them. Citation clustering, as used in this and other studies, can thus help to identify relationships and user groups.

Even when groups have been identified, they may not prove large enough to justify a special service in published form (as distinct from individually profiled SDI services), nor may they include all users. For example, social work administrators may have needs that are both wider and narrower than those of social workers in the field, their interests may be highly localised, and there are not very many of them. Researchers may be working in highly specialised interdisciplinary fields. Nevertheless a system which was adjusted to as many as 80 per cent of users would probably be a substantial improvement on the present system.

Given a considerable variety of user groups with different types of need, each of which might be held to require a distinctive type of service, can the present pattern of services be improved, and is there any scope for rationalisation to reduce effort and cost? There are really two questions: whether the information exists, or can be obtained, to aid rationalisation, and whether the practical barriers to rationalisation can be overcome.

The present range of choice between services is clearly a wide one. How satisfactory it is for such users as, eg, practitioners needing a fast selective service could be ascertained only by far more complex tests than those used in the present study. For a researcher doing a complete literature search, particularly if he wants abstracts, there is no fully adequate service - he would have to use several to approach full coverage.

The scale of the problem can hardly be denied. The primary literature is now very voluminous and the secondary services exist to provide access to it. However, secondary services have grown at an even faster rate than primary services (see DISISS Report A2). In 1900 there were 25, in 1970 702 current secondary services (some of them included in primary journals); in the four years 1965-1968 alone 100 new services appeared.Tables 31 and 32 show both the

TABLE 31

GROWTH OF SECONDARY SERVICES IN THE SOCIAL SCIENCES RELATIVE TO PRIMARY JOURNALS

Year	Secondary services*		Primary journals		Number of primary journals per secondary service
	A Number of current titles	B % increase between dates	C Number of current titles	D % increase between dates	$\frac{A}{C}$
1900	25	-	380	-	15.2
1910	47	88	523	38	11.1
1920	69	47	694	33	10.1
1930	101	46	993	43	9.8
1940	149	47	1281	29	8.6
1945	170	14	1417	11	8.3
1950	296	74	1806	27	6.1
1955	415	41	2118	17	5.1
1960	517	25	2470	17	4.8
1965	624	21	2923	18	4.7
1970	702	22	3490	19	5.0

* including those contained in primary journals

TABLE 32

SUBJECT DISTRIBUTION OF SECONDARY SERVICES IN THE SOCIAL SCIENCES

Subject	Number of titles	Percentage
General social science	178	22.8
Economics	118	15.1
Education	91	11.7
Political science	61	7.8
Social welfare	53	6.8
Law	40	5.1
Sociology	38	4.9
Anthropology	33	4.2
Management	35	4.5
Psychology	26	3.3
Environment and planning	23	2.9
Geography	18	2.3
Librarianship	18	2.3
History	15	1.9
Linguistics	13	1.7
Statistics	11	1.4
Criminology	7	0.9
Ergonomics	3	0.4
TOTAL	781	100

(Figures in this table are derived from an analysis of the Check List of Social Science Serials (CLOSSS) constructed for DISISS. Each service was allocated one subject code only. Services in subjects such as history and statistics were included in CLOSSS selectively, as having some connection with the social sciences) growth and the subject breakdown of secondary services in the social sciences.

It has been shown in several studies as well as the present one that to obtain reasonable coverage of relevant literature any user has normally to use 5 or 6 services, and this situation is likely to get worse if present trends continue. We know also that even researchers in the social sciences use on average fewer than two services. Either there should be fewer and larger services, or services should be much better adjusted to user groups. The problem with the former alternative is not so much that larger services tend to be expensive - the total cost would probably be much less than a number of smaller services - but that size creates problems of usability; either each issue has to be very large or issues have to appear very frequently, and effectiveness appears likely to be reduced both by increased bulk and by increased frequency of issues (see DISISS Report B3). As for better adjustment of services to user groups, the problems here are of practicability - exactly how can better adjustment be achieved?

The current situations in criminology and public administration are very different. There are several services specifically concerned with criminology; none of them is ideal, though one (Abstracts on Criminology and Penology) has a very good coverage and Crime and Delinquency Literature supplements it usefully. In public administration, there is only one major service (Public Administration Abstracts) strictly devoted to the subject, a few minor ones, and numerous more general indexing and abstracting services, most of which contain relevant material not included in PAA; several had good coverage of public administration (Bulletin Analytique de Documentation Économique, Politique et Sociale, ABC Pol Sci , International Bibliography of the Social Sciences: Political Science and International Political Science Abstracts, but other services all covered additional titles. The practical administrator in particular would probably wish to use PAIS Bulletin, and perhaps Recent Publications on Governmental Problems. The problem of selection and use of services is thus much greater than with criminology.

In view of the effort and cost involved in the production of secondary services, the inability of any but the richest libraries to provide more than a limited range, the difficulty users have in selecting which services to use and their known reluctance to use more than one or two, the possibility of rationalising the present system should at least be considered. ACP and CDL, for example, appear to have similar functions and audiences; a single combined service would be much cheaper to produce than two separate services, libraries would be more likely to buy one service than two, and users would be better served. In public administration, ABC, IBSS and IPSA are presumably aimed at similar user groups, though their aims are otherwise different - ABC is a quickly available contents listings, IPSA a selective abstracting service, and IBSS an archival and fairly comprehensive bibliography. There is quite probably room for all of these, but each could be improved in coverage and all would be spared some effort and cost if they cooperated, for example by establishing a comprehensive data base which each of the services in turn could use (not necessarily however using all the items in it). PAA could still be produced as a special subset. Rationalisations of this kind are not likely to take place while different organisations produce the services in question, unless cooperation on a hitherto inconceivable scale occurs.

The 'minor' services - especially those included in primary journals as selective alerting services and those aimed at mainly local audiences - could possibly be linked to the 'big' services by using their comprehensive data base as a pool from which to draw such items as they thought appropriate for their particular purposes. They could supplement these if desired by items of local interest.

A pattern of services such as the above - it is of course only one possible pattern - would ensure that special user groups were served, while making use of more than two services in one field at the most unnecessary. The field would overlap with others and to produce a 'rational' system on a larger scale would require much greater cooperation and coordination. The problems of organising services at an international level, not so much for comprehensive coverage as for rapid input of new entries and speedy publication, are very formidable, and it may be necessary to settle for something much less than a total system - perhaps by cooperation between English speaking countries. Cooperation between producers within the USA or the UK would be a useful start.

The questions considered here have been given increased importance and urgency by the economic crisis in journal publishing, which must affect secondary as well as primary services. At the worst, there might in a few years be relatively few survivors, not by any means necessarily the fittest in terms of appropriateness to users, but the best able to survive because their markets are well established or because their publishers can provide the necessary financial support. As pointed out in DISISS Report A4, secondary services are rarely exposed to user evaluation; they tend to be bought by libraries, which are not normally their main users, so that inadequate services can be perpetuated. At the best, good planning and cooperation could result in rather fewer but more carefully designed services, with shared data bases, planned overlaps, and no gaps in coverage except those deliberately left.

Whether or not coordination and rationalisation prove possible, the need to clarify the objectives, functions and audience of any service would hardly be denied. The mere attempt to state precisely whom a service was intended to serve, and in what way, and on what grounds decisions had been reached as to coverage and content, could be a very salutary exercise.

Let us suppose that coherent user groups have been identified. The material relevant to them has then to be identified. Citation clustering can be used for this as well as for identifying research user groups; serials can be grouped into families, and the subjects of these can in turn be used to suggest monographs and other new serials of likely relevance. However, perhaps a better method for small, especially interdisciplinary, fields, and usually a simpler method, would be by lists of journals cited by a few key journals in the centre of the field in question. In some cases the use of both methods could be justified.

Few services aim to be comprehensive, and some means of selection may be needed. In the case of practitioners, the most significant journals can probably be identified by consensus - more accurately than by citation analyses, because many useful practitioner journals are little cited. The identification of important articles in other journals is difficult; expert judgement to select items from a 'pool' (if one exists) of relevant material may be the best solution.

For researchers, citation analyses can be used to produce lists of journals ranked in order of citations to articles (Garfield's 'impact factor'), and the most highly ranked selected for coverage. It is important however to ensure that the sources of citations that are used are satisfactory. For a service aimed at British political scientists, a rank list based on three or four key American political science journals would not be ideal. Either a large number of journals and monographs should be used as sources, or the sources should be carefully selected as being of particular relevance to the target user group - in the above example, a selection of key British journals, with the addition of a few key American and European journals, would be appropriate. The same principle can be applied in more specialised subjects: the more specialised the subject, the stronger the case for using specialised sources of citation.

A selective service based solely on a limited number of journals would miss many important items in other journals. These too could be identified by citation analyses, but not until several months after their publication. The solution may be to select manually from journals just below those most highly ranked in the citation rank lists, and supplement this selection by the subsequent identification of articles by citations as above.

Not only does a much more systematic approach to the design of secondary services appear to be badly needed, but many of the techniques necessary appear to be available, if not to solve all the problems, at least to aid their solution very significantly. A logical approach would be as follows:

Define intended audience
Refine definition of audience if necessary by cluster analysis
See whether any other service is aimed at this user group
Decide -immediate or moderate current awareness, or retrospective search capacity
    -level of entry - index entry, annotated entry, short or full abstract
    -broad or narrow coverage
    -selective or comprehensive coverage

Identify - material to be covered
- subject area (by cluster analysis or citations from selected sources)
- individual items (especially journals and articles) for potential coverage (by citation analyses and/or expert judgment)
- individual items (especially journals and articles) selected for inclusion (by citation rank lists of journals, supplemented by most cited articles and non-serial publications and/or manual selection from less-cited journals)

Evaluate and refine decisions on coverage, currency and level of entry, and determine optimal frequency of issue, by practical experimentation and user evaluation.

It is not suggested that all of these processes would be necessary in all cases, but the above could be useful if only as a checklist aid to decision making. There is much the individual system designer can do to improve his service; and clearly much more that could be achieved by cooperation. At the very least, machinery for cooperation should be seriously contemplated.

REFERENCES

ADAMS, S. & BAKER, D.B. Mission and discipline orientation in scientific abstracting and indexing services. *Library Trends*, 1968, 16(3), 307-322.

AIYEPEKU, W.O. Problems of complete bibliographic control: the position of geography in relation to the social sciences. *Nigerian Librarian*, 1971, 7(1-2), 1-11.

AIYEPEKU, W.O. International recognition and the geographical literature on Nigeria. *Journal of Librarianship*, 1974, 6(4), 264-279.

AMERICAN PSYCHOLOGICAL ASSOCIATION. *Reports of the project on scientific information exchange in psychology* 3 volumes. Washington, American Psychological Association, 1963-69.

AMSDEN, D. Information problems of anthropologists. *College and Research Libraries*, 1968, 29(2), 117-131.

ANDRY, R.G. Existing documentation services in criminology and future needs. *Aslib Proceedings*, 1965, 17(2), 50-59.

APPEL, J.S. & GURR ,T. Bibliographic needs of social and behavioral scientists: report of a pilot survey. *American Behavioral Scientists*, 1964, 7(10), 51-54.

ATHERTON, P. & GREER, R.C. A comparative study of the coverage of *Nuclear Science Abstracts*, *Physics Abstracts* and *Chemical Abstracts*. *FID 33rd Conference Abstracts*, 1967, vol. 1, 41.

ATHERTON, P. & YOVICH, J.C. Study of *Physics Abstracts* - abstracting three types of journals. *Journal of Chemical Documentation*, 1964, 4(3), 157-163.

BACKHOUSE, J. *Indexing and abstracting services in the research library*. London, GLC Dept. of Planning and Transportation Research Library, July 1973, (Research bibliography no. 51).

BARKER, F.H., WYATT, B.K. & VEAL, D.C. Report on the evaluation of an experimental computer based current awareness service for chemists. *Journal of the American Society for Information Science* , 1972, 23(2), 85-99.

BATH UNIVERSITY. Investigation into Information Requirements of the Social Sciences. *Research report no. 1: Information requirements of researchers in the social sciences*. Bath, University Library, 1971.

BATH UNIVERSITY. *Experimental information officer in the social sciences, 1969-71: final report*. Bath, University Library, 1972.

BATH UNIVERSITY. Design of Information Systems in the Social Sciences. *User evaluation of an information service in social welfare: report of an interview and questionnaire study of the 'Wiltshire Social Services Staff Digest'*. Bath, University Library, 1973 (Research Report B1).

BATH UNIVERSITY. Design of Information Systems in the Social Sciences. Analysis of requests made to the National Children's Bureau question and answer service. Bath, University Library, 1973. (Research Report B2).

BATH UNIVERSITY. Design of Information Systems in the Social Sciences. The relationship between usefulness and style of secondary publication: an Experimental Information Service for Planners. Bath, University Library, 1974 (Research Report B3).

BATH UNIVERSITY. Design of Information Systems in the Social Sciences. The size, growth and composition of social science literature. Bath, University Library, 1975 (Research Report A2).

BATH UNIVERSITY. Design of Information Systems in the Social Sciences. The structure of social science literature as shown by citations. Bath, University Library, 1976 (Research Report A3).

BATH UNIVERSITY. Design of Information Systems in the Social Sciences. The evaluation of operational effectiveness and its use in the design of information systems. Bath, University Library, 1975 (Research Report A4).

BATH UNIVERSITY. Design of Information Systems in the Social Sciences. The application of clustering techniques to citation data. Bath, University Library, 1976 (Research Report B6).

BERG, S.V. Increasing the efficiency of the economics journal market. Journal of Economic Literature, 1971, 9(3), 798-813.

BODIGUEL, J.L. & KESSLER, M.C. L'administration française. Paris, A. Colin, 1970.

BOEHM, E. Blueprint for bibliography: a system for the social sciences and humanities. Santa Barbara, Clio Press, 1965.

BONN, G.S. Relative usefulness of indexing and abstracting services. College and Research Libraries, 1950, 11, 207-210.

BORGSTROM, G. & PARIS, O. Gaps in abstracting. Food Technology, 1964, 18(1), 64-66.

BOTTLE, R.T. A user's assessment of current awareness services. Journal of Documentation, 1965, 21(3), 177-189.

BOTTLE, R.T. Information obtainable from analyses of scientific bibliographies. Library Trends, 1973, 22(1), 60-71.

BOURNE, C.P. Characteristics of coverage by the Bibliography of Agriculture of the literature relating to agricultural research and development. Palo Alto (Calif.), Information General Corporation, 1969. PB 185 425.

BOURNE, C.P. Overlapping coverage of Bibliography of Agriculture by 15 other secondary services. Prepared for NAL by Information General Corporation, 1969. PB 185 069.

BOURNE, C.P. Abstracting and indexing rates and costs: a literature review. ERIC/CLIS, 1970 (ED 043 798).

BRACE, M.C. Survey of indexing and abstracting services. Special Libraries, 1938, 29, 120.

BRADFORD, S.C. The extent to which scientific and technical literature is covered by present abstracting and indexing periodicals. In: Proceedings 14th Aslib Conference, London, Aslib, 1973, 59-71.

BREWER, J.G. The literature of geography. London, Bingley, 1973.

BRITISH COUNCIL. Public administration: a select list of books and periodicals. London, Longmans, 1964.

BRITTAIN, J.M. Information and its users. Newcastle upon Tyne, Oriel Press and Bath University Press, 1970.

BRITTAIN, J.M. & LINE, M.B. Sources of citations and references for analysis purposes: a comparative assessment. Journal of Documentation, 1973, 29 (1), 72-80.

BROCKWAY, D. How many times must a periodical be indexed? In: American Theological Library Association. Proceedings 27th Annual Conference. Philadelphia, ATLA, 1973, 105-107.

BUNTROCK, H. Some results of an inquiry into agricultural documentation services. In: ISLIC International Conference on Information Science Proceedings, Tel Aviv, 1971. Tel Aviv, NCSTI, 1972, 111-119.

CAWKELL, A. The Social Sciences Citation Index: description and applications. Inspel, 1973, 8(3/4), 58-63.

CHORHERR, R. Development of nuclear energy literature in the period 1946-60 with special reference to abstracting services. Revue Internationale de Documentation, 1962, 29(4), 117-123.

CLAPP, V.W. Indexing and abstracting services for serial literature. Library Trends, 1954, 2, 509-521.

COBI Project. Milieu of U.K. secondary services: 1978-1983: tentative outline. Unpublished report by R.H. Orr, 1973.

COLLISON, R.L. Indexes and indexing. London, Benn, 1959.

COLLISON, R.L. The annals of abstracting, 1665-1970. Los Angeles, UCLA, School of Library Services and University Library, 1971.

COOPER, M. & TERRY, E. Secondary services in physics. New York, AIP, 1969.

DANSEY, P. A bibliometric survey of primary and secondary information science literature. Aslib Proceedings, 1973, 25(7), 252-263.

DEWS, J.D. & FORD, M.M. An investigation into existing documentation services in business studies: a report submitted to OSTI. Manchester, Manchester Business School, 1969.

DITMAS, E.M.R. Co-ordination of information: a survey of schemes put forward in the last fifty years. Journal of Documentation, 1948, 3(4), 209-221.

DITMAS, E.M.R. The co-ordination of abstracting services: Unesco's approach to the problem compiled by E.M.R. Ditmas from the Unesco reports. Journal of Documentation, 1948, 4(2), 67-83.

DOWNS, R.B. & JENKINS, F.B. Bibliography: current state and future trends. Urbana, University of Illinois Press, 1967 (Illinois contributions to librarianship, no. 8).

DUCHESNE, R.M. Analysis of costs and performance. Library Trends, 1973, 21(4), 587-603.

EDWARDS, T. LISA and the comprehensive control of library and information science literature. International Library Review, 1972, 4(1), 67-70.

ELLIOTT, C.K. Abstracting services in psychology: a comparison of Psychological Abstracts and Bulletin Signalétique. Library Association Record, 1969, 71, 280-283.

FEDERATION INTERNATIONALE DE DOCUMENTATION. Abstracting services (repackaging vs. duplication). FID News Bulletin, 1974, 24(1), 5.

FINK, H. Coverage of materials in special documentation. Methods of Information in Medicine, 1966, 5(2), 75-80.

FLANAGAN, C.M. Co-ordination: a detailed review of the relationship among the publications and services of BIOSIS, CAS and Ei. Journal of Chemical Documentation, 1973, 13(2), 57-59.

FLETCHER, J., ed. Use of economics literature. London, Butterworth, 1971.

FOECKING, C.M. Coverage and time lag study of four abstracting journals with respect to semi-conductor physics literature. Case Western Reserve University, 1957 (Masters thesis).

FRANK, O. Co-operation and co-ordination in abstracting and documentation. In: Proceedings of the International Conference on Scientific Information. Washington, NAS-NRC, 1959. Vol. 1, 497-510.

FREIDES, T. Literature and bibliography of the social sciences. New York, Wiley, 1973.

FRY, B. Evaluation study of ERIC products and services: summary volume: final report. Bloomington, Graduate Library School, March 1972 ED 060 922.

GARFIELD, E. & SHER, I. Article-by-article coverage of selected abstracting services. Philadelphia, ISI, 1964.

GAUDENZI, Nerio. Efficiency of metallurgical abstracts. In: Proceedings of the International Conference on Scientific Information. Washington, NAS-NRC, 1959; Vol. 1, 393-406.

GILCHRIST, A. Documentation of documentation: a survey of leading abstract services in documentation and an identification of key journals. Aslib Proceedings, 1966, 18(3), 62-80.

GLASS, B. Survey of biological abstracting. Science, 22 April 1955, 121, 583-584.

GOIL, N.K. Bibliographical tools in social sciences and their characteristics. Library Herald, 1970 12(1), 20-24.

GROSS, P.L.K. & GROSS, E.M. College libraries and chemical education. Science, October 28 1927, 66, 385-389,

GUY, R.F. A study of the periodical references on the topic 'sociology of leisure' cited in two secondary sources, International Bibliography of Sociology and Sociological Abstracts. Belfast, National Documentation Centre for Sport, Physical Education and Recreation, 1973.

GWIRTSMAN, J.J. Coverage of Russian chemical literature in Chemical Abstracts. Journal of Chemical Documentation, 1961, 1(2), 38-44.

HALASZI, J. Het dekking percentage van Nederlandse landbouwkundige publikaties in buitenlandse referaatorganen. Wageningen, Centrum voor Landbouw-publikaties en Landbouwdokumentaties, 1968.

HARMON, R.B. *Political science literature*. Metuchen, Scarecrow, 1965. Also Supplement 1 (1968) & Supplement 2 (1972) .

HEINE, M.H. Records of journals and related secondary literature. *Journal of Documentation*, 1974, 30(1), 103-105.

HERNER, S. Subject slanting in scientific abstracting publications. *In*: *Proceedings of the International Conference on Scientific Information*, Washington, NAS-NRC, 1959. Vol. 1, 407-427.

HIMWICH, W.A., et al. *Survey of world medical periodicals and coverage by indexing and abstracting services*. Baltimore, Johns Hopkins University, 1954 (Welch Medical Library indexing project).

HOUGHTON, B. & ROWLAND, G. Index values. *New Library World*, 1973, 72(886), 363-364.

INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS/ABSTRACTING BOARD. *World literature in physics as seen through Physics Abstracts 1964 issues*. 2 vols. Paris, ICSU, 1967.

INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS/ABSTRACTING BOARD. *World literature in physics as seen through Bulletin Signalétique 1964 issues*. 2 vols. Paris, ICSU, 1968.

INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS/ABSTRACTING BOARD. *A world system for abstracting and and indexing services, part 1: plan for developing co-operation at the input stage.* Paris, ICSU, 1970.

JONES, E.P. *Comparison of Mineralogical Abstracts with section 8 of Chemical Abstracts*. New York, Columbia University School of Library Service, 1948 (Masters Thesis).

KEENAN, S. Secondary publications and services: tools for users and training of users. *In*: Federation Internationale de Documentation. *Users of documentation: FID International Congress on Documentation, Buenos Aires, 1970*. The Hague, FID, 1970 (FID publication no. 472).

KEENAN,S. & ATHERTON, P. *The journal literature of physics: a comprehensive study based on Physics Abstracts (Science Abstracts, Section A) 1961 issues*. New York, AIP, 1964,(Report AIP/DRP PA1).

KEENAN, S. & BRICKWEDDE, F.G. *Journal literature covered by Physics Abstracts in 1965*. New York, AIP, 1968,(Report ID68-1).

KELLER, M. Documentation of the alcohol literature: a scheme for an interdisciplinary field of study. *Quarterly Journal of Studies on Alcohol*, 1964, 24, 725-741.

KENNEDY, H.E. Progress report: BIOSIS/CAS/Ei overlap study. *Biological Abstracts*, 1972, 53(9), xxiv.

KIEHLMANN, E. Organization and efficient manual searching of the major chemical title and abstract publications. *Journal of Chemical Documentation*, 1973, 13(2), 78-82.

KING, D.W. *Cost/benefits analysis: a study conducted for the American Psychological Association*. Bethesda, Westat, 1969.

KING, D.W. & BRYANT, E.C. *Evaluation of information services and products*. Washington, Information Resources Press, 1971.

KINGSLEY, J. Bibliographic organization of American history: a continuing problem. American Documentation, 1959, 10(4), 270-273.

KLEMPNER, I.M. Diffusion of abstracting and indexing services for government sponsored research. Metuchen, Scarecrow, 1968.

LANCASTER, F.W. Evaluation of published indexes and abstracts journals: criteria and possible procedures. Bulletin of the Medical Library Association, 1971, 59(3), 479-494.

LEGGATE, P., et al. The BA previews project: the development and evaluation of a mechanised SDI service for biologists: final report. Oxford, Oxford University Experimental Information Unit, 1973 (OSTI Report 5140).

LEWIS, P.R. The literature of the social sciences. London, Library Association, 1960.

LEWIS, P.R. The present range of documentation services in the social sciences. Aslib Proceedings, 1965 17(2), 40-49.

LITTLETON, I.T. The literature of agricultural economics: its bibliographic organization and use. Raleigh, North Carolina Agricultural Expiriment Station, March 1969 (Tech. Bull. no. 191).

LIVINGSTON, L.G. A composite effort to build an on-line national serials data base. Library of Congress Inf. Bull., 1974, 33(5), A35-A37.

LOUTITT, C.M. Some problems of Psychological Abstracts. Special Libraries, 1955, 46, 456-460.

LYKOUDIS, P.S. et al. Analytical study of a method for literature search in abstracting journals. In: Proceedings of the International Conference on Scientific Information, volume 1, Washington, NAS-NRC, 1959, 351-375.

LYNCH, M.F. Computer based information services in science and technology: principles and techniques. Stevenage, Peter Peregrinus, 1974.

MALTBY, A. Economics and commerce: sources of information and their organisation. London, Bingley, 1968.

MANN, M.G. & WILSON, T.D. Forum on social welfare library/information research, Sheffield, June 28-30, 1974. Report of proceedings.... Sheffield, Postgraduate School of Librarianship and Information Science, 1974.

MARINESCU, M. Analysis of coverage of biological research topics in the Bulletin of Scientific Information - biology series. Studii şi Cercetări de Documentare, 1966 8(4), 471-481.

MARTYN, J. & SLATER, M. Tests on abstracts journals. Journal of Documentation, 1964, 20(4), 197-203.

MARTYN, J. Tests on abstracts journals: coverage, overlap and indexing. Journal of Documentation, 1967, 23(1), 45-70.

MASON, D. Programmed budgeting and cost effectiveness. Aslib Proceedings, 1973, 25(3), 100-110.

MELEGH, A. Hungarian journal for abstracting foreign literature on librarianship and information science. Tudományos és Műszaki Tajékoztatás, 1973, 20(2), 112-122.

MELTZER, H. Industrial psychology in Psychological Abstracts, 1927-1969. Journal of Psychology, 1971, 78, 125-137.

MONTGOMERY, R.R. An indexing coverage study of the toxicological literature. Journal of Chemical Documentation, 1973, 13(1), 41-44.

MOST, S. & KESSLER, S.K. Abstract service for specific areas of high current interest: a preliminary report. American Documentation, 1962, 13(1), 86-89.

NATIONAL FEDERATION OF SCIENCE ABSTRACTING AND INDEXING SERVICES. National plan for science abstracting and indexing services. Philadelphia, NFSAIS, 1963.

NATIONAL FEDERATION OF ABSTRACTING AND INDEXING SERVICES. National Federation of Abstracting and Indexing Services: history and issues 1958-1973. Philadelphia, NFAIS, 1973 (Report no. 5).

NEELAMEGHAN, S. Abstracting services in the medical sciences. Annals of Library Science and Documentation, 1955, 2(3), 89-96.

NIWA, Y. The abstracting service in physical and mathematical sciences. Paper presented to 10th Pacific Science Congress, Honolulu, 1961.

NOVAKOVA, H. Analyza svetovych sekundarnich pramenu informatiky. (Analysis of world abstracting services in information). Bibliograficky Časopis, 1969, 3(2), 118-136.

O'CONNOR, J.G. & MEADOWS, A.J Physics Abstracts as a source of abstracts in astronomy. Journal of Documentation, 1968, 24(2), 107-112.

OLSEN, H.A. The economics of information: bibliography and commentary on the literature. ERIC/CLIS, 1971 (ED 044 545).

ORNA, E. The effectiveness of secondary sources in the field of manpower studies. Watford, Engineering Industry Training Board, 1973. (Mimeographed).

ORR, R.H. & CROUSE, E.M. Secondary publication in cardiovascular, endocrine and psychopharmacological research. American Documentation, 1962, 13(2), 197-203.

ORR, R.H., PINGS, V.M. & LEEDS, A.A. Reference retrieval tools: biomedical abstracting and indexing services. Federation Proceedings, 1964, 23, 1164-1176.

OSGOOD, C.E. & XHIGNESSE, L.U. Characteristics of bibliographic coverage in psychological journals published in 1950 and 1960. Chicago, University of Illinois, Institute of Communication Research, 1963.

PARKINS, P.V. Biosciences information service of Biological Abstracts. Science, 1966, 152(3724), 889-904.

PINGS, V.M. A plan for indexing the periodical literature of nursing. New York, American Nurses Foundation, 1966.

PRESANIS, A. & BROOKES, B.C. COMPENDEX evaluation project. London, University College, July 1973 (OSTI Report 5182).

PRITCHARD, A. Computers, bibliometrics and abstracting services. Research in Librarianship, 1970, 3(15), 94-99.

RADZINOWICZ, L. Criminal law, criminology and forensic science. Medicine, Science and the law, 1(1), 1960/61.

RAJAGOPALAN, T.S. & SEN, B.K. Reporting of Indian physics literature in Physics Abstracts. Annals of Library Science and Documentation, 1964, 11(4), 87-95.

RAJAGOPALAN, T.S. et al. Reporting of Indian agricultural literature in some CAB abstracting services. Annals of Library Science and Documentation, 1965, 12(2), 87-99.

RAJAGOPALAN, T.S. et al. Reporting of Indian mathematics literature in the Mathematical Review and Bulletin Signalétique. Annals of Library Science and Documentation, 1965, 12(3), 137-150.

REGAZZI, J.J. The present status of indexing and abstracting services in the field of religion: a quantitative analysis. In: American Theological Library Association. Proceedings 27th annual conference. Philadelphia, ATLA, 1973, 107-108.

RIGBY, M. & RIGBY, M.K. Cost analysis of bibliographies or bibliographic services. In: Proceedings of the International Conference on Scientific Information, Washington, NAS-NRC, 1959. Vol. 1, 381-392.

RILEY, R.F. et al. Study of coverage in Chemical Abstracts of the literature on C-reactive protein - a biomedical border area. Journal of Chemical Documentation, 1966, 6(2), 72-76.

RING, M.E. Fifty years of the Index to Dental Literature: a critical appraisal. Bulletin of the Medical Library Association, 1971, 59(3), 463-478.

ROBERTS, N. Current control of journal literature in economics in the United Kingdom. International Library Review, 1971, 3(2), 123-131.

ROBERTS, N. Desiderata for national bibliographical services. Aslib Proceedings, 1972, 24(8), 473-479.

ROPER, F.W. An analysis of five abstracting services in the medical and biological sciences. Chapel Hill, University of North Carolina, 1962 (Masters Thesis).

ROUTH, S.J. & McPHERSON, M. On the indexing of anthropological journals. College and Research Libraries, 1968, 29(4), 313-314.

RUHL, M.J. & SOKOLOFF, I. Literature analysis project of the American Rheumatism Association. Arthritis and Rheumatism, 1964, 7(6), 135-145.

SAKAI, I. A statistical survey of time lags in chemical abstracting journals. Library Science (Japan), 1967, 5, 127-136.

SEWELL, W., McCANN, A. & KELLY, I. Abstract and index services in the pharmaceutical field. Advances in Chemistry, 1956, 16, 209-220.

SHEEL, P. Recent trends in scientific documentation in South Asia: problems of speed and coverage. In: Proceedings of the International Conference on Scientific Information. Washington, NAS-NRC, 1959. Vol. 1, 589-603.

SHILLING, C.W. & BENTON, M.C. Pharmacology, toxicology and cosmetics serials: an analysis of their characteristics. Washington, D.C., George Washington University Biological Science Communication Project, 1965 (BSCP Communiqué 22-65).

SIEGMAN, P.J. & GRIFFITH, B.C. The changing role of Psychological Abstracts in scientific communication. American Psychologist, 1966, 21, 1037-1043.

SLATER, F., ed. Cost reduction for special libraries and information centers. Washington, ASIS, 1973.

SLATER, M. Analytical abstracts: user reaction study. London, Aslib, 1968.

SMITH, M.H. An evaluation of abstracting journals and indexes. In: Proceedings of the International Conference on Scientific Information. Washington, NAS-NRC, 1959. Vol. 1, 321-350.

STEWART, J.L. The literature of politics: a citation analysis. International Library Reveiw, 1970, 2(3), 329-353.

SYSTEM DEVELOPMENT CORPORATION. A system study of abstracting and indexing in the United States. Falls Church (Virginia), SDC, 1966.

TAKEUCHI, J. & KOZANO, Analysis of literature coverage in periodicals of Japan fishery science. Toshokankai, 1966, 18(2), 40-55.

TANABE, T. & TAKAMARO, T. Analysis of Japanese papers as seen in the Nuclear Science Abstracts of Japan. In: Proceedings 3rd National Convention for the Study of Information and Documentation, 1966, 51-54.

TAPPER, C. Mechanized methods of documentation of interest to criminologists. Aslib Proceedings, 1965, 17(2), 60-70.

TENEICK, M.N. Bibliographical comparison of twelve selected physiological areas of Biological Abstracts and British Physiological Abstracts. Tallahassee, Florida State University, 1953 (Masters Thesis).

THOMPSON, G.K. Abstracting services in education and the social sciences: a study of document analysis techniques useful for the development of a computer-based decentralized information network. Geneva, ILO, 1971. (Unpublished).

THOMPSON, L.S. Bibliographical control of linguistic scholarship. Journal of Documentation, 1967, 23(2), 99-109.

THORNTON, J.L. & TULLY, R.I.J. Scientific books, libraries and collectors. London, Library Association, 1962.

THORPE, P. An evaluation of the rheumatology coverage of Index Medicus: a preliminary report. Journal of the American Society for Information Science, 1972. 23(6), 406.

THORPE, P. An evaluation of Index Medicus in rheumatology: coverage, currency, efficiency. Methods of Information in Medicine, 1974, 13(1), 44-47.

ULTEE, W.C. & RIESTHUIS, G.J.A. De verspreiding van Nederlandse sociologie door een aantal dokumentatie instellingen. Utrecht, Sociolgisch Instituut van de Rijksuniversiteit te Utrecht, 1972.

UNIVERSITY OF DURHAM Project for evaluating the benefits from university libraries; final report. Durham, University of Durham Computer Unit, 1969.

URQUHART, D.J. Physics abstracting - use and users. Journal of Documentation, 1965, 21(2), 113-121.

VALENTI, M. & RONCHI, M.T. Coverage of documentation literature by indexing and abstracting services. *OMKDK Modszertani Kíadvanysorazata*, 1965, (4-5), 53-64.

VAROISSEAU, W.W. *Een ondezoek aangaande referaatdiensten op het gebied der zuivere en toegepasten natuurwetenschappen* NIDER Publ. no. 285, 1949, 54p.

VERHEIJEN-VOODG, C. & MATHIJSEN, A. A contribution to the comparison of the usefulness of the data bases of *Excerpta Medica* and MEDLARS in biomedical literature retrieval. *Aslib Proceedings*, 1974, 26(4), 136-151.

VIRGO, J.A. An evaluation of *Index Medicus* and MEDLARS in the field of opthalmology. *Journal of the American Society for Information Science*, 1970, 21(4), 254-264.

WARD, P.L. *Coverage and time lag in secondary services in the field of political science*. London. Polytechnic of North London, 1972. (Unpublished).

WEISMAN, H.M. *Information systems, services and centers*. New York, Becker & Hayes, 1972.

WHATLEY, H.A. Library science and documentation indexing and abstracting services. *Unesco Bulletin for Libraries*, 1965, 19(5), 226-231.

WHITE, B. *Sourcebook of information for planning*. London, Bingley, 1971.

WHITE, C.M., et al. *Sources of information in the social sciences: a guide to the literature*. 2nd edition. Chicago, ALA, 1973.

WOOD, D.N. & BOWER, C.A. An evaluation of some abstracting and indexing services in the earth sciences. *NLL Review*, 1971, 1(4), 113-118.

WOOD, J.L. et al. Overlap in the lists of journals monitored by Biosis, CAS and Ei. *Journal of the American Society for Information Science*, 1972, 23(1), 36-38.

WRIGHT, J.K. & PLATT, E.T *Aids to geographical research*. 2nd edition. New York, Columbia University Press, 1947 (American Geographical Society, Research Series no. 22).

WRIGHT, M. *Use of criminology literature*. London, Butterworths, 1974.

ZANEVALD, J.S. Het aantal botanische publicaties in *Biological Abstracts* en *Botanisches Zentralblatt*. *Vakblad voor Biologen*, 1938, 20(4), 58.

APPENDIX A

LIST OF SECONDARY SERVICES IDENTIFIED AND STUDIED

Criminology secondary services

The following services were identified as being relevant to criminology. Those marked with an asterisk (*) were actually located and studied; full descriptive details of these are given in Table 2 .

Abstracts of Bulgarian Scientific Literature - Economics and Law
*Abstracts on Criminology and Penology
*British Journal of Criminology
Crime and Delinquency
*Crime and Delinquency Abstracts
*Crime and Delinquency Literature
Documentatieblad (Ministerie van Justitie, Netherlands)
Documentation Juridique Étrangère
Howard Journal
Issues in Criminology
*Journal of Criminal Law, Criminology and Police Science
Journal of Research in Crime and Delinquency
*Liste Semestrielles d'Articles Sélectionnés (Section Juridique de la Commission Internationale de Police Criminelle)
Revue de Droit Pénal et de Criminologie (Belgium)

It was recognised that other social science secondary services might be relevant to criminology. The following were identified, but in the event none was analysed for coverage and overlap.

Abstracts for Social Workers
American Behavioral Scientist
American Journal of Sociology
American Sociological Review
Année Sociologique
Aslib Index to Theses
British Education Index
British Humanities Index
Bulletin Signalétique (Section 390 Psychologie, etc.)
Centrale Sociologische Bibliografie (Utrecht)
Current Contents -Behavioral, Social and Educational Sciences
Current Sociology
Dissertation Abstracts International, Series A
Document Review of the Library of the Institute of Social Studies (The Hague)
Education Index
Familles dans le Monde
Grinstein, A. The Index of Psychoanalytic Writings
International Bibliography of the Social Sciences - Social and Cultural Anthropology
International Bibliography of the Social Sciences - Sociology
Mundus
Psychological Abstracts
Public Affairs Information Service Bulletin

Research in Education
Revue Bibliographique des Ouvrages de Droit, de Jurisprudence, d'Économie Politique, de Science Financière et de Sociologie
Revue Française de Sociologie
Science Citation Index
Social Sciences Information
Social Sciences and Humanities Index
Sociological Abstracts
Sociology of Education Abstracts

Public administration secondary services

The following services were identified as being relevant to public administration. Those marked with an asterisk (*) were actually located and studied; full descriptive details of these are given in Table 14.

*Anbar Abstracts
*ABC Pol Sci (Advanced Bibliography of Contents, Political Science and Government)
Bibliographia (International Union of Local Authorities)
Bibliography of Public Personnel Administration Literature
*Bulletin Analytique de Documentation Politique, Économique et Sociale Contemporaine
*Bulletin de l'Institution International d'Administration Publique
Collectivités Locals
Communes d'Europe
*Current Literature on Community Health and Personal Social Services (DHSS)
*Index to Periodical Articles (DOE) (1972 - as DOE Library Bulletin)
*International Bibliography of the Social Sciences Political Science
*International Political Science Abstracts
*International Review of Administrative Science
*LOGA (Local Government Annotations)
Municipal Year book
*Public Affairs Information Service Bulletin
*Social Sciences and Humanities Index
Aménagement du Territoire et Développement Régional (Paris)
*Australian Public Affairs Information Service
Authorised Weekly Gazette and Index of Official Information (in *Municipal and Public Services Journal*)
Book Notes Bulletin (Administrative Staff College)
Départments et Communes (Paris)
*Focus (London Borough of Wandsworth)
Information Municipal (Paris)
Local Councils Digest
Local Government Literature
Members Bulletin (Birmingham Public Libraries)
Metropolitan Area Problems: News and Digest (New York)
*Personnel Literature Index
*Public Administration Abstracts and Index of Articles (New Delhi)
*Quarterly Bulletin. Research and Intelligence Unit, Greater London Council (Section - London Research Abstracts)
*Recent Publications on Governmental Problems (Chicago)
*Research Index
*Royal Institution of Public Administration Accessions List
Vie Urbaine (Paris)
Architecture and Town Planning

*British Humanities Index
BLPES Monthly List of Additions
Classified Accessions List (Department of the Environment)
Civil Service Department (a) Current Contents (b) Reading List Series
  (c) Accessions List
Current Contents - Behavioral, Social and Educational Sciences
Ministry of Defence Library (a) Book List (b) Accessions List
Public Management Series
University of California - Library of the Institute of Governmental
  Studies Accessions List

APPENDIX B

JOURNALS COVERED BY CRIMINOLOGY SECONDARY SERVICES, BY FREQUENCY OF COVERAGE

COVERAGE GROUP 6

*International Criminal Police Review (Paris)
Revue Internationale de Criminologie et de Police Technique (Geneva)

COVERAGE GROUP 5

American Journal of Correction
Crime and Delinquency
Journal of Research in Crime and Delinquency
Medicine, Science and the Law
Police
Police Journal
Revue de Droit Pénal et de Criminologie

COVERAGE GROUP 4

American Bar Association Journal
American Journal of Psychiatry
Archiv für Kriminologie
British Journal of Criminology
Canadian Journal of Corrections
Community Schools Gazette
Criminal Law Review (London)
FBI Law Enforcement Bulletin
Federal Probation
Journal of Criminal Law, Criminology and Police Science
Rassegna di Studi Penitenziari
Revue de Science Criminelle et de Droit Pénal Comparé
University of Chicago Law Review

COVERAGE GROUP 3

Acta Criminologica
Addictions
American Journal of Orthopsychiatry
American Sociological Review
Annales Internationales de Criminologie
British Journal of Addictions
British Journal of Psychiatry
California Youth Authority
Children
Criminal Law Bulletin
Criminologist
Howard Journal of Penology and Crime Prevention
International Journal of the Addictions

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*Ceased publication 1971

COVERAGE GROUP 3 (CONT.)

Issues in Criminology
Journal of Correctional Education
Law and Order
Monatsschrift für Kriminologie und Strafrechtsreform
Nederlands Tijdschrift voor Criminologie
Police Chief
Prison Service Journal
Probation
Quaderni di Criminologia Clinica
Recueil de Droit Pénal
Revista de Estudios de Penitenciarios
Revue Abolitionniste
Security Gazette
Social Forces
Tijdschrift voor Strafrecht
Wisconsin Law Review
Yale Law Journal
Zeitschrift für die Gesamte Strafrechtswissenschaft

COVERAGE GROUP 2

Adolescence
Algemeen Politieblad
American Criminal Law Quarterly
American Rifleman
American University Law Review
Annals of the American Academy of Political and Social Science
Archivos de Criminologia, Neuropsiquiatria y Disciplinas Conexas
Australian and New Zealand Journal of Criminology
Australian Police Journal
Bewährungshilfe
Boston University Law Review
British Journal of Medical Psychology
British Medical Journal
Bulletin de l'Administration Pénitentiaire
Bulletin de la Société Internationale de Défense Sociale
Bulletin of the Menninger Clinic
Bulletin on Narcotics (Geneva)
California Law Review
Cambridge Law Journal
Canadian Bar Journal
Canadian Medical Association Journal
Case Conference
Child Welfare
Corrective Psychiatry and Journal of Social Therapy
Criminal Law Quarterly
Criminal Law Review
Criminalia
Delinquency and Society
Derecho Penal Contemporanco
Drug Dependence
Esperienze di Rieducazione
Die Executive
Fingerprint and Identification
Fordham Law Review
Georgetown Law Journal

COVERAGE GROUP 2 (CONT.)

Giustizia Penale
Harvard Law Review
Information Review on Crime and Delinquency
International Journal of Offender Therapy
International Journal of Social Psychiatry
International Review of Criminal Policy
Jikeikai Medical Journal
Journal of Forensic Sciences
Journal of Social Issues
Journal of the Forensic Science Society
Kriminalistik (Köln)
Kriminalistik - Zeitschrift für die gesamte kriminalistische Wissenschaft und Praxis (Hamburg)
Lancet
Maandschrift voor het Gevangeniswezen
Magistrate
Medico-Legal Journal
Mental Hygiene
Michigan Law Review
Neue Polizei
New Society
New York University Law Review
Nordisk Tidsskrift for Kriminalvidenskab
Policia Española
Polizei
Popular Government
Prison Journal
Psychiatry
Recht der Jugend
Rééducation, Revue Français de l'Enfance
Revija za Kriminalistiko in Kriminologivo
Revista de la Obra de Protección de Minores
Revue Pénitentiaire et de Droit Pénal
Royal Canadian Mounted Police Gazette
Sauvegarde de l'Enfance
Schweizerische Zeitschrift für Strafrecht
Social Casework
Social Defence
Sočialistichesko Pravo
Social Problems
Social Work
Sosiologia
Southern California Law Review
Sovetskoe Gosudarstvo i Pravo
Sovietskaya Yustitsiya
Staat und Recht
Trans-Action
University of Colorado Law Review
University of Kansas Law Review
Vanderbilt Law Review
Virginia Law Review
Washburn Law Journal
Youth Authority Quarterly
Zeitschrift für Strafvollzug

COVERAGE GROUP 1

Abstracts on Criminology and Penology
Acta Criminologiae et Medicinae Legalis Japonica
Acta Criminologiae et Medicinae Legalis Japonica/Hanzaigaku Zasshi
Acta Juridica Academiae Scientarium Hungaricae
Acta Paedopsychiatrica
Acta Sociologica
Acta Universitatis Palackianae Olomucensis
Activitas Nervosa Superior
Actualité Juridique
Aktuelle Beiträge der Staats- und Rechts- Wissenschaft, Deutsche Akademie für Staats- und Rechtswissenschaft 'Walther Ulbricht'
Albany Law Review
Alcool ou Santé
Algemeen Dagblad
Allam-és Jogtudomány
American Anthropologist
American Behavioral Scientist
American Journal of Comparative Law
American Journal of Mental Deficiency
American Journal of Psychotherapy
American Journal of Sociology
American Scholar
Anaheim
Anali
Analytical Chemistry
Analytical Letters
Annales de Médecine des Accidents et du Traffic (France)
Annales de Médecine Légale, Criminologie, Police Scientifique, et Toxicologie (Paris)
Annales de Vaucresson
Annales Médico-Psychologique
Annales de Pédiatrie
Annual Survey of American Law
Applied Social Studies
Archives Belge de Médecine Sociale et de Médecine Légale
Archives of General Psychiatry
Archivo d'Antropologia Criminale, Psichiatrica e Medecina Legale
Archivio Penale
Archivio di Psicologia, Neurologia et Psichiatria
Arizona Law Review
Arkansas Law Review
Assignment Children

Australian Journal of Forensic Sciences
Australian Law Journal
Baylor Law Review
Behavior Research and Therapy
Behavioral Science
Bermuda Police Magazine
Blutalkohol
Boletim de Administração Penitenciária
Boletin del Institut Interamericana del Niño
Brandwacht
British Journal of Educational Psychology
British Journal of Hospital Medicine
British Journal of Psychiatric Social Work

COVERAGE GROUP 1 (CONT.)

British Journal of Social and Clinical Psychology
British Journal of Sociology
British Journal of Social Psychiatry
British Journal of Venereal Diseases
British Transport Police Journal
Brooklyn Law Review
Buffalo Law Review
Bulletin
Bulletin des Stupéfiants
Bulletin d'Information - UNO
Bulletin New York Academy of Medicine
Bulletin of Narcotics (New York)
Bulletin of the Society of Professional Investigators
Bulletin Société de Criminologie du Québec
Bulletin van Het Bestuur der Strafinrichtingen
CPR National Journal
Cahiers JEB
California Western Law Review
Camaraderia
Canada's Mental Health
Canadian Historical Review
Canadian Journal of Behavioral Science
Canadian Psychiatric Association Journal
Carabiniere
Československa Patologie
Československa Psychiatrie
Československa Psychologie
Chemical and Engineering News
Chicago Police Star
Child Care
Chitty's Law Journal
Chronique de UNESCO
Chroniques Internationales de Police
Cleveland-Marshall Law Review
Cleveland State Law Review
Challenge
Clinical Pediatrics
College Store Journal
Colorado Law Review
Columbia Forum
Columbia Journal of Law and Social Problems
Columbia Law Review
Community Mental Health Journal
Concepte
Congrès et Colloques de l'Université de Liège
Congressional Digest
Connecticut Law Journal
Constabulary Gazette
Contributions à l'Étude des Sciences de l'Homme
Cornell Journal of Social Relations
Cornell Law Quarterly
Cornell Law Review
Correctional Process
Correctional Psychologist
Correctional Research
Correctional Research Bulletin
Correctional Review

COVERAGE GROUP 1 (CONT.)

Courrier
Criminal Bureau of Investigation Bulletin
Criminalia
Criminologia (Brazil)
Criminologia (Santiago, Chile)
Criminologica
Criminology and Political Science
Criminology - an Interdisciplinary Journal
Current Affairs Bulletin
Current Laboratory Practice
Daedalus
Dalloz
Defender Newsletter
Dectector
Derecho
Derecho Penal Contemporaneo
Deutsche Gesundheitswesen
Deutsche Medizinische Wochenschrift
Deutsche Polizei
Der Deutsche Polizeibeamte
Deutsche Zeitschrift für die Gesamte Gerichtliche Medizin
Difesa Social
Digest of Neurology and Psychiatry
Documentatieblad
Drake Law Review
Droit Social
Duke Law Review
Eastern Africa Law Review
Education and Urban Society
Employment Service Review
Estudios de Deusto
Ethics
Études Internationales de Psycho-Sociologie Criminelle
Excerpta Criminologica
Family Law Quarterly
Federal Corrections
Federal Rules Decisions
Feiten - C_2H_5OH - Alcohol
Finanziere
Fonctionnaire de Police
Fortschritte der Neurologie, Psychiatrie und ihrer Grenizgebiete
Fortune
Gendarmerie Nationale
Genetic Psychology Monographs
George Washington Law Review
Georgetown Medical Journal
Gibles
Giornale di Psichiatria e di Neuropatologia

Goltdammers Archiv für Strafrecht
Guardia Civil
Guns
Habart
Hapraklit
Harefuah

COVERAGE GROUP 1 (CONT.)

Harper's Magazine
Harvard Civil Rights, Civil Liberties Law Review
Hastings Law Journal
History
Hong Kong Police Magazine
Howard Law Journal
Human Relations
Human Relations Training News
Identification
Identification News
Illinois Continuing Legal Education
Illustrierte Rundschau der Gendarmerie
Indiana Law Journal
Indian Journal of Social Work
Infanzia Anormale
Inform
Informacion Juridica
Information Psychiatrique
Informations Pénitentiares Suisses
Information sur l'Alcoolisme et autre Toxicomanies O.P.T.A.T.
Indiana Legal Forum
Instantanées Criminologiques
Interaction
Interesse
International and Comparative Law Quarterly
International Annals of Criminology
Internationale Polizei Association
International Journal of Offender Therapy
International Journal of Group Psychotherapy
International Journal of Psycho-analysis
Interpreter
Investigacion y Doceria
Iowa Law Review
Iowa Sheriff
Irish Jurist
Jag Journal
Jeugdwerk Nu
Journal des Tribunaux
Journal of Abnormal Psychology
Journal of Alcoholism
Journal of A.O.A.C.
Journal of Behavior Therapy and Experimental Psychiatry
Journal of Chromatographic Science
Journal of Chronic Diseases
Journal of Consulting Clinical Psychology
Journal of Correctional Work
Journal of Experimental Child Psychology
Journal of Experimental Psychology
Journal of Experimental Social Psychology
Journal of Family Law
Journal of Forensic Medicine
Journal of Gneral Psychology
Journal of Genetic Psychology
Journal of Nervous and Mental Disease
Journal of Personality and Social Psychology
Journal of Psychedelic Drugs

COVERAGE GROUP 1 (CONT.)

Journal of Psychology
Journal of Psychosomatic Research
Journal of Safety Research
Journal of School Health
Journal of Social Psychology
Journal of the American Judicature Society
Journal of the American Medical Association
Journal of the American Pharmaceutical Association
Journal of the Arkansas Medical Society
Journal of the California Probation, Parole and Correction Association
Journal of the Economic and Social History of the Orient
Journal of the Indian Law Institute
Journal of the Missouri Bar
Journal of the South Carolina Medical Association
Journal of the State Bar of California
Journal of Urban Law
Journal on Alcohol and Alcoholism (Zagreb)
Journal on Alcoholism
Judicature
Jugendhilfe
Jugendwohl - Katholische Zeitschrift für Kinder- und Jugendfürsorge
Jugenschutz
Juris-Classeur Périodique
Juristen Zeitung
Juvenile Court Journal
Juvenile Court Judges Journal
Kentucky Law Journal
Key Issues
Kinderärtzliche Zeitung
Koepel
Kölner Zeitschrift für Soziologie und Sozial-Psychologie
Kriminalvarden
Kriminologische Journal
Lakartidningen
Lancashire Constabulary Gazette
Laval Medical
Law and Contemporary Problems
Law and Legislation in the German Democratic Republic
Law in Transition Quarterly
Law Officer
Law Society's Gazette
Legal Aid Brief Case
Legal Aid Review
Lex et Scientia
Liaisons
Life Sciences
Locksmith Ledger
Los Angeles Police Beat
Maandblad voor Berechting en Reclassering
Maandblad voor de Geestelijke Volksgezondheid
Maandstatistiek, Politie Justitie
Maine Law Review
Marquette Law Review
Maryland State Medical Journal
Massachusettes Law Quarlerly
Médecine Légale et Dommage Corporel
Mededelingen van Het Strafbureau Voorlichting

COVERAGE GROUP 1 (CONT.)

Medical Journal of Australia
Medicina Legale e Delle Assicurazioni
Mental Health Digest
Michigan Police Journal
Microgram
Microscope
Military Rechtelijk Tijdschrift
Military Law Review
Military Police Journal
Mind
Minerva Medica
Minnesota Law Review
Minnesota Police Journal
Mississippi Law Journal
Modern Law Review
Monatsschrift für Deutsches Recht
Mozaïek
Municipal Court Review
Municipal Reference Library Notes
NCCD News
Nachrichtendienst der Deutschen Vereins für Öffentliche Private Fürsorge
National Prisoner Statistics
National Sheriff
Nature
Nebraska Law Review
Nederlands Tijdschrift voor de Psychologie
Nederlands Tijdschrift voor Geneeskunde
Neuropsichiatria
New Law Journal
New South Wales Police News
New York Times Magazine
New Yorker
New Zealand Police Journal
Nkhwazi
Nordisk Kriminalteknisk Tidsskrift
Nordisk Medicin
Norelco Reporter

North Carolina Medical Journal
Northwestern University Law Review
Notre Dame Lawyer
Nouveau Droit Yougoslave
OACI Bulletin
Offentliche Sicherheit
Official Magazine
Officer de Police
OIPC Interpol Reports to the General Assembly
Oklahoma Law Review
On Guard Pacific Northwest Law Enforcement News
Orvosi Hetilap
Ospedali Psichiatrica
Österreichische Artzezeitung
Österreichische Richterzeitung
Ouders van Nu
Outpost

COVERAGE GROUP 1 (CONT.)

Pädagogische Rundschau
Paňstwo i Prawo
Pasicusie Luxembourgeoise
Peace Officer
Pediatrics
Penant, Revue Administrative
Pennsylvania Association on Probation, Parole and Correction
Pennsylvania Bar Association Quarterly
Pennsylvania Chiefs of Police Association Bulletin
Pennsylvania Medicine
Perkin-Elmer Instrument News
Perspective
Playboy Magazine
Police College Magazine
Police Life
Police Management Review
Police News
Police Research Bulletin
Police Review
Policemen's Association News
Policía Portuguesa
Poliisimies
Polistidningen
Political Studies
Politie Dierenbescherning
Politiet (Tidsskrift for Politivaesen)
Die Polizei
Polizeiblatt
Polizei im Land Berlin
Polizei, Technik, Verkehr
Polizia Moderna
Pravna Misăl
Pravnik
Praxis
Praxis der Kinderpsychologie
Prévention Routière dans l'Entreprise
Prison Officers Magazine
Probation and Childcare
Probleme de Medicinà Legalasi de Criminalisticà
Pro Juventute
Prosecuter
Prospectus
Provost Parade
Przeglad Penitenciarny
Psychiatria et Neurologia Japonica
Psychiatria, Neurologia, Neurochirurgia
Psychiatria Polska
Psychiatrie, Neurologie, und Medizinische Psychologie
Psychological Reports
Psychology Bulletin
Psychology Today
Public Administration Review
Public Health Report
Public Interest
Quarterly (The)
Quarterly Journal of Studies on Alcohol
Rassegna dell' Arma dei Carabinieri

COVERAGE GROUP 1 (CONT.)

Rassegna de Studi Psichiatrici
Readers Digest
Reports of the National Research Institute of Political Science
Research Review, Dept. of Institutions, State of Washington
Rassegna di Studi Penitenziari
Review of the Youth Protective Services
Revista Brasileira de Criminolgia e Direito Penal

Revista da Policia do São Paulo
Revista de Ciencias Penales
Revista de la Facultad de Derecho
Revista de la Guardia Civil del Perú
Revista de la Policía Nacional
Revista de Legislaçao e de Jurisprudencia
Revista de Policía Técnica
Revista Illustrada
Revista Juridica de la Universidad de Puerto Rico
Revista Românăna de Drept
Revue Canadienne de Criminologie
Revue de Droit et de Legislation
Revue de Droit International et de Droit Comparé
Revue de Droit Pénal Militaire et de Droit de la Guerre
Revue de la Gendarmerie
Revue de la Police Nationale
Revue de l'Institut de Sociologie
Revue de Practicien
Revue Français de Droit Aérien
Revue Générale d'Études de la Politique Française
Revue Hellénique de Droit International
Revue International de Police Criminelle
Revue des Services de Bien-être à l'Enfance et à la Jeunesse
Revue Pénale Suisse
Revue Trimestrielle de Droit Européen
Revue Trimestrielle de Droit Sanitaire et Social
Revue Juridique du Congo
Revue Pénitentiare et de Droit Pénal
Rivista della Guardia di Finanza
Rivista Penale
Royal Barbados Police Magazine
Royal Canadian Mounted Police Quarterly
Royal Malaysian Police Magazine
Rutgers Law Review
Sa'ad
SARP - the South African Law Journal
Saturday Review
Scandinavian Studies in Criminology
Schweizer Archiv für Neurologie, Neuro-Chirurgie und Psychiatrie
Science
Scientific American
Scuola Positiva
Sécurité Routière
Security World Magazine
Semaine des Hôpitaux
Sheriff and Police Reporter
Signal One
Singapore Police Magazine

COVERAGE GROUP 1 (CONT.)

Social Problems (Kalamazoo,, Michigan)
Social Problems (South Bend, Indiana)
Social Problems (Worcester, Mass)
Social Science Review
Social Service Outlook
Social Service Review
Social Work (London)
Sociologia Criminal
Sociology and Social Research (Los Angeles)
Sociology and Social Research (Tel-Aviv)
Sociometry
South-Western Journal of Anthropology
Soviet Studies
Soziale Arbeit
Soziale Demokratie
Speculum Juris
Spring 3100
Statistical Bulletin of Israel
Studii şi Cercetări Juridice
Suomen Poliisilehti
Svensk Polis
Syracuse Law Review
Tally Ho
Temple Law Quarterly
Tennessee Bar Journal
Tennessee Law Review
Texas Law Review
Therapie der Gegenwart

Tijdschrift voor Maatschappelijk Werk
Tijdschrift voor de Politie
Tijdschrift voor Sociale Geneeskunde
Tohoku Psychologica Folia
Traffic Quarterly
Transactions of the American Philosophical Society
Trial
Trinidad and Tobago Police Magazine
Tulane Law Review
Ugeskrift for Laeger
University of California Los Angeles Law Review
University of Cincinnati Law Review
University of Missouri at Kansas City Law Review
University of Pennsylvania Law Review
University of San Francisco Law Review
University of Toledo Law Review
Unsere Jugend - Zeitschrift für Jugendhilfe in Wissenschaft und Praxis
Valor
Valparaiso University Law Review
Vera Giustizia Sociale
Vestnik Moskovskogo Universiteta
Vie de la Douane
Vie Judiciaire
Villanova Law Review
Virginia Medical Monthly
Virginia Trooper

COVERAGE GROUP 1 (CONT.)

Vista Volunteer
Volkspolizei
Washburn Law Review
Washington and Lee Law Review
Washington Post
Welfare Reporter
Wiener Medizinische Wochenschrift
Wiener Zeitschrift für Nervenheilkunde und deren Grenzgebiete
Williamette Law Journal
Wissenschaftliche Beiträge der Martin-Luther-Universität Halle-Wittenberg
Wissenschaftliche Zeitschrift der Martin-Luther-Universität Halle-Wittenberg,
Gesellschafts und Sprachwissenschaftliche Reihe
Youth Service News
Zbornik Pravnog Fakulteta u. Zagrebu
Zdrowe Publiczne
Zeitschrift für das gesamte Familienrecht
Zeitschrift für Menschenkunde
Zeitschrift für Psychotherapie und medizinische Psychologie
Zeitschrift für Verkehr ssicherheit
Zentralblatt für Jugendrecht und Jugendwohlfahrt

APPENDIX C

JOURNALS COVERED BY EACH OF THE SECONDARY SERVICES IN CRIMINOLOGY STUDIED

ABSTRACTS ON CRIMINOLOGY AND PENOLOGY

Coverage Group	
(3)	Acta Criminologica (Canada)
(1)	Acta Criminologiae et Medicinae Legalis Japonica/Hanzaigaku Zasshi (Japan)
(1)	Acta Juridica Academiae Scientarium Hungaricae
(1)	Acta Paedopsychiatrica (Switzerland)
(1)	Acta Universitatis Palackianae Olomucensis
(1)	Activitas Nervosa Superior (Czechoslovakia)
(3)	Addictions (Canada)
(2)	Adolescence (U.S.A.)
(1)	Aktuelle Beiträge der Staats- und Rechts-Wissenschaft, Deutsche Akademie für Staats- und Rechtswissenschaft 'Walther Ulbricht' (D.D.R.)
(1)	Algemeen Dagblad
(2)	Algemeen Politieblad (Netherlands)
(1)	Allam-és Jogtudomány (Hungary)
(4)	American Bar Association Journal
(1)	American Journal of Comparative Law
(5)	American Journal of Correction
(1)	American Journal of Mental Deficiency
(3)	American Journal of Orthopsychiatry
(4)	American Journal of Psychiatry
(1)	American Journal of Psychotherapy
(2)	American Rifleman
(3)	American Sociological Review
(3)	Annales Internationales de Criminologie (France)
(1)	Annales de Médecine Légale, Criminologie, Police Scientifique, et Toxicologie (France)
(1)	Annales Médico-Psychologique (France)
(2)	Annals of the American Academy of Political and Social Science
(1)	Annales de Pédiatrie (France)
(4)	Archiv für Kriminologie (West Germany)
(1)	Archives of General Psychiatry (U.S.A.)
(2)	Archivio di Penale (Italy)
(2)	Archivos de Criminologie, Neuropsiquiatria y Disciplinas Conexas
(1)	Assignment Children (1968) (France)
(2)	Australian and New Zealand Journal of Criminology
(2)	Australian Police Journal
(1)	Behavior Research and Therapy
(1)	Behavioral Science (U.S.A.)
(2)	Bewährungshilfe (West Germany)
(1)	Blutalkohol (West Germany)
(3)	British Journal of Addictions
(4)	British Journal of Criminology
(2)	British Journal of Medical Psychology
(3)	British Journal of Psychiatry
(1)	British Journal of Social and Clinical Psychology
(1)	British Journal of Sociology
(1)	British Journal of Social Psychiatry
(1)	British Journal of Venereal Diseases
(2)	British Medical Journal
(2)	Bulletin on Narcotics
(2)	Bulletin of the Menninger Clinic (U.S.A.)
(1)	Bulletin of the Society of Professional Investigators (U.S.A.)

Coverage Group	
(2)	Bulletin on Narcotics (Switzerland)
(1)	Bulletin van het Bestuur der Strafinrichtingen (Belguim)
(3)	California Youth Authority
(2)	Cambridge Law Journal
(2)	Canadian Bar Journal
(2)	Canadian Bar Review
(1)	Canadian Journal of Behavioral Science
(4)	Canadian Journal of Corrections
(2)	Canadian Medical Association Journal
(1)	Canadian Psychiatric Association Journal
(2)	Case Conference (U.K.)
(1)	Československa Psychiatrie
(1)	Československa Psychologie
(3)	Children (U.S.A.)
(2)	Child Welfare (U.S.A.)
(1)	Chroniques Internationales de Police (France)
(1)	Clinical Pediatrics (U.S.A)
(1)	Community Mental Health Journal (U.S.A.)
(1)	Concepte (Berlin)
(1)	Congrès et Colloques de l'Université de Liège (Belgium)
(1)	Correctional Process (Canada)
(2)	Corrective Psychiatry and Journal of Social Therapy (U.S.A.)
(1)	Courrier (Canada)
(5)	Crime and Delinquency (U.S.A.)
(1)	Criminalia (Mexico)
(2)	Criminal Law Quarterly (Canada)
(4)	Criminal Law Review (U.K.)
(1)	Criminologia (Brazil)
(1)	Current Affairs Bulletin (Australia)
(2)	Delinquency and Society (Israel)
(1)	Deutsche Gesundheitswesen (Berlin)
(1)	Deutsche medizinische Wochenschrift (West Germany)
(1)	Digest of Neurology and Psychiatry
(1)	Documentatieblad (Netherlands)
(2)	Drug Dependence (U.S.A.)
(1)	Eastern Africa Law Review (Tanzania)
(2)	Esperienze di Rieducazione (Italy)
(2)	Exekutive (Austria)
(4)	FBI Law Enforcement Bulletin (U.S.A.)
(4)	Federal Probation (U.S.A.)
(1)	Fieten - C_2H_5OH - Alcohol (Netherlands)
(1)	Fortschritte der Neurologie, Psychiatrie und ihrer Grenzgebiete (West Germany)
(1)	Giornale di Psichiatria e di Neuropatologia (Italy)
(2)	Giustizia Penale (Italy)
(1)	Godishnik Sofiiski Universitet (Bulgaria)
(1)	Harefuah (Israel)
(2)	Harvard Law Review (U.S.A.)
(3)	Howard Journal of Penology and Crime Prevention (U.K.)
(1)	Infanzia Anormale (Italy)
(2)	Information Review on Crime and Delinquency (U.S.A.)
(1)	Indiana Legal Forum (U.S.A.)
(1)	Interesse (Austria)
(6)	International Criminal Police Review (France)
(3)	International Journal of the Addictions (U.S.A.)
(1)	International Journal of Group Psychotherapy (U.S.A.)
(2)	International Journal of Offender Therapy (U.S.A.)
(2)	International Journal of Social Psychiatry (U.S.A.)

Coverage Group	
(3)	Issues in Criminology (U.S.A.)
(1)	Jeugdwerk Nu (Netherlands)
(1)	Jikeikai Medical Journal
(1)	Journal of Abnormal Psychology (U.S.A.)
(1)	Journal of Alcoholism (U.K.)
(1)	Journal of Behavior Therapy and Experimental Psychiatry (U.S.A.)
(1)	Journal of Consulting Clinical Psychology (U.S.A.)
(3)	Journal of Correctional Education (U.S.A.)
(4)	Journal of Criminal Law, Criminology and Police Science (U.S.A.)
(1)	Journal of Experimental Child Psychology (U.S.A.)
(1)	Journal of Experimental Social Psychology (U.S.A.)
(1)	Journal of Genetic Psychology (U.S.A.)
(1)	Journal of Nervous and Mental Disease (U.S.A.)
(1)	Journal of Psychosomatic Research (U.K.)
(5)	Journal of Research in Crime and Delinquency (U.S.A.)
(1)	Journal of School Health (U.S.A.)
(2)	Journal of Social Issues (U.S.A.)
(1)	Journal of Social Psychology (U.S.A.)
(1)	Journal of the American Medical Association
(1)	Journal of the Arkansas Medical Society
(1)	Journal of the South Carolina Medical Association
(1)	Jugendhilfe (D.D.R.)
(1)	Jügendwohl - Katholische Zeitschrift für Kinder- und Jugendfürsorge (West Germany)
(1)	Jugendschutz (West Germany)
(2)	Jugoslovenska Revija za Kriminalogiju i Krivicno Pravo (Yugoslavia)
(1)	Kinderärtzliche Zeitung (D.D.R.)
(1)	Koepel (Netherlands)
(2)	Kriminalistik - Zeitschrift für die gesamte kriminalistische Wissenschaft und Praxis (West Germany)
(1)	Kriminologische Journal (West Germany)
(1)	Lakartidningen (Sweden)
(2)	Lancet (U.K,)
(1)	Laval Médical (Canada)
(1)	Law and Legislation in the German Democratic Republic
(1)	Law Society's Gazette (U.K.)
(1)	Lex et Scientia (U.S.A.)
(1)	Life Sciences (U.S.A.)
(1)	Maandblad voor de Geestelijke Volksgezondheid (Netherlands)
(1)	Maandblad voor Verechting en Reclassering (Netherlands)
(2)	Maandschrift voor het Gevangeniswezen (Netherlands)
(1)	Maandstatistiek Politie Justitie (Netherlands)
(2)	Magistrate (U.K.)
(1)	Maryland State Medical Journal
(1)	Mededelingen van het Strafbureau Voorlichting (Minst. van Just) (Netherlands)
(1)	Medical Journal of Australia
(2)	Medicina Legale (Italy)
(5)	Medicine, Science and the Law (U.K.)
(2)	Mental Hygiene (U.S.A.)
(1)	Militar Rechtelijk Tijdschrift (Netherlands)
(1)	Military Police Journal (U.S.A.)
(1)	Minerva Medica (Italy)
(3)	Monatsschrift für Kriminologie und Strafrechtsreform (West Germany)
(1)	Mozafek (Netherlands)
(1)	NCCD News (U.S.A.)
(1)	Nachrichtendienst der deutschen Vereins für öffentliche Private Fürsorge (West Germany)

Coverage Group	
(1)	Nature (U.K.)
(3)	Nederlands Tijdschrift voor Criminologie (Netherlands)
(1)	Nederlands Tijdschrift voor de Psychologie (Netherlands)
(1)	Nederlands Tijdschrift voor Geneeskunde (Netherlands)
(2)	Neue Polizei (West Germany)
(1)	Neuropsichiatria (Italy)
(1)	New Law Journal (U.K.)
(2)	New Society (U.K.)
(2)	New York University Law Review
(1)	Nordisk Medicin
(2)	Nordisk Tidsskrift for Kriminalvidenskab (Denmark)
(1)	North Caroline Medical Journal (U.S.A.)
(1)	Orvosi Hetilap (Hungary)
(1)	Ospedali Psichiatrica (Italy)
(1)	Österreichische Ärtzezeitung (Austria)
(1)	Österreichische Richterzeitung (Austria)
(1)	Ouders van Nu (Netherlands)
(1)	Pädagogische Rundschau
(1)	Paňstwo i Prawo (Poland)
(1)	Pediatrics (U.S.A.)
(1)	Pennsylvania Medicine (U.S.A.
(5)	Police (U.S.A.)
(5)	Police Journal (U.K.)
(2)	Policia Española (Spain)
(2)	Polizei (West Germany)
(1)	Polizei, Technik, Verkehr (West Germany)
(1)	Praxis (Switzerland)
(1)	Praxis der Kinderpsychologie (West Germany)
(2)	Prison Journal (U.S.A.)
(1)	Prison Officers Magazine (U.K.)
(3)	Prison Service Journal (U.K.)
(3)	Probation (U.K.)
(1)	Pro Juventute (Netherlands)
(1)	Przeglad Penitenciarny (Poland)
(1)	Psychiatria et Neurologia Japonica
(1)	Psychiatria, Neurologia, Neurochirurgia (Netherlands)
(1)	Psychiatria Polska (Poland)
(1)	Psychiatrie, Neurologie, und Medizinische Psychologie (D.D.R.)
(1)	Psychological Reports (U.S.A.)
(1)	Public Health Report (U.S.A.)
(3)	Quaderni di Criminologia Clinica (Italy)
(1)	Quarterly Journal of Studies on Alcohol (U.S.A.)
(4)	Rassegna di Studi Penitenziari (Italy)
(2)	Recht der Jugend (West Germany)
(3)	Recueil de Droit Pénal (France)
(2)	Rééducation, Revue Français de l'Enfance
(2)	Revija za Kriminalistiko in Kriminologivo (Yugoslavia)
(1)	Revista Centro de Estudios Criminologicos (Mendoza)
(1)	Revista de Ciencias Penales (Chile)
(3)	Revista de Estudios de Penitenciarios (Spain)
(2)	Revista de la Obra de Proteccion de Oinores (Spain)
(1)	Revista Juridica de la Universidad do Puerto Rico
(1)	Revista Romania de Drept
(3)	Revue Abolitioniste (Sweden)
(5)	Revue de Droit Pénal et de Criminologie (Belguim)
(1)	Revue de l'Institut de Sociologie (Belguim)
(4)	Revue de Science Criminelle et de Droit Pénal Comparé (France)
(6)	Revue Internationale de Criminologie et de Police Technique (Switzerland)

Coverage Group	
(1)	Revue Juridique du Congo
(1)	Revue Pénitentiaire et de Droit Pénal (France)
(1)	Revue des Services de Bien-être a l'Enfance et à la Jeunesse
(1)	Sa'ad (Israel)
(2)	Sauvegarde de l'Enfance (France)
(1)	Schweizer Archiv für Neurologie, Neurochirurgie und Psychiatrie (Switzerland)
(2)	Schweizerische Zeitschrift für Strafrecht (Switzerland)
(1)	Science (U.S.A.)
(3)	Security Gazette (U.K.)
(1)	Security World Magazine (U.S.A.)
(2)	Social Casework (U.S.A.)
(3)	Social Forces (U.S.A.)
(2)	Socialistichesko Pravo (Bulgaria)
(2)	Social Problems (U.S.A.)
(1)	Social Service Review (U.S.A.)
(1)	Social Work (London)
(2)	Social Work (New York)
(1)	Sociologia Criminal (Brazil)
(1)	Sociology and Social Research (U.S.A.)
(2)	Sosiologia (Finland)
(2)	Sovetskoe Gosudarstvo i Pravo (U.S.S.R.)
(1)	Soziale Arbeit (Berlin-Lichterfelde)
(1)	Soziale Demokratie (Berlin)
(1)	Speculum Juris (Netherlands)
(2)	Staat und Recht (D.D.R.)
(1)	Statistical Bulletin of Israel
(1)	Studii şi Cerčetari Juridice (Romania)
(1)	Therapie der Gegenwart (Berlin-Charlottenburg)
(1)	T. Orthoped.
(1)	Tijdschrift voor Maatschappelijk Werk (Netherlands)
(1)	Tijdschrift voor Sociale Geneeskunde (Netherlands)
(3)	Tijdschrift voor Strafrecht (Netherlands)
(2)	Trans-Action (U.S.A.)
(1)	Ugeskrift for Laeger (Denmark)
(4)	University of Chicago Law Review
(1)	Unsere Jugend - Zeitschrift für Jugendhilfe in Wissenschaft und Praxis (West Germany)
(1)	Vera Giustizia Sociale (Italy)
(1)	Vestnik Moskovskogo Universiteta (U.S.S.R.)
(1)	Virginia Medical Monthly (U.S.A.)
(1)	Volkspolizei (Berlin)
(2)	Washburn Law Journal (U.S.A.)
(1)	Wiener medizinische Wochenschrift (Austria)
(1)	Wiener Zeitschrift für Nervenheilkunde und deren Grenzgebiete
(1)	Wissenschaftliche Beiträge der Martin-Luther-Universität Halle-Wittenberg (D.D.R.)
(1)	Wissenschaftliche Zeitschrift der Martin-Luther-Universität Hall-Wittenbert, Gesellschafts und Sprachwissenschaftliche Reihe (D.D.R.)
(1)	Zbornik Pravnog Fakulteta u. Zagrebu (Yugoslavia)
(1)	Zdrowe Publiczne (Poland)
(1)	Zeitschrift für das gesamte Familienrecht (West Germany)
(3)	Zeitschrift für die gesamte Strafrechtswissenschaft (Berlin)
(1)	Zeitschrift für Menschenkunde (West Germany)
(1)	Zeitschrift für Psychotherapie und medizinische Psychologie (West Germany)
(2)	Zeitschrift für Strafvollzug (West Germany)

Coverage
Group

(1) Zentrallblatt für Jugendrecht und Jugendwohlfahrt (West Germany)

BRITISH JOURNAL OF CRIMINOLOGY

Coverage Group	
(3)	Addictions (Canada)
(1)	American Anthropologist (U.S.A.)
(2)	American Criminal Law Quarterly
(5)	American Journal of Correction
(3)	American Journal of Orthopsychiatry
(4)	American Journal of Psychiatry
(1)	American Journal of Sociology
(3)	American Sociological Review
(1)	Anaheim
(1)	Applied Social Studies (U.K.)
(1)	Australian Journal of Forensic Sciences
(1)	Australian Law Journal
(3)	British Journal of Addictions
(1)	British Journal of Educational Psychology
(1)	British Journal of Hospital Medicine
(2)	British Journal of Medical Psychology
(1)	British Journal of Psychiatric Social Work
(3)	British Journal of Psychiatry
(2)	British Medical Journal
(2)	Bulletin on Narcotics (Switzerland)
(2)	Cambridge Law Journal (U.K.)
(1)	Canadian Historical Review
(4)	Canadian Journal of Corrections
(2)	Case Conference (U.K.)
(1)	Chicago Police Star (U.S.A.)
(1)	Child Care (U.K.)
(3)	Children (U.S.A.)
(2)	Community Schools Gazette (U.K.)
(1)	Cornell Law Review (U.S.A.)
(1)	Correctional Research (U.S.A.)
(5)	Crime and Delinquency (U.S.A.)
(4)	Criminal Law Review (U.K.)
(3)	Criminologist (U.K.)
(1)	Daedalus (U.S.A.)
(1)	Education and Urban Society (U.S.A.)
(1)	Ethics (U.K.)
(4)	Federal Probation (U.S.A.)
(1)	Genetic Psychology Monographs (U.S.A.)
(1)	History (U.K.)
(3)	Howard Journal of Penology and Crime Prevention (U.K.)
(1)	Human Relations
(6)	International Criminal Police Review (France)
(3)	International Journal of the Addictions (U.S.A.)
(1)	International Journal of Psycho-Analysis (U.K.)
(2)	International Journal of Social Psychiatry (U.K.)
(4)	Journal of Criminal Law, Criminology and Police Science (U.S.A.)
(1)	Journal of General Psychology (U.S.A.)
(1)	Journal of Personality and Social Psychology (U.S.A.)
(1)	Journal of Psychology (U.S.A.)
(5)	Journal of Research in Crime and Delinquency (U.S.A.)
(1)	Journal of the Economic and Social History of the Orient (Netherlands)
(1)	Journal of the South Carolina Medical Association (U.S.A.)

Coverage Group	
(1)	Journal on Alcoholism (U.K.)
(2)	Jugoslovenska Revija za Kriminologiju i Krivicno Pravo (Yugoslavia)
(2)	Magistrate (U.K.)
(2)	Medico-Legal Journal
(2)	Mental Hygiene (U.S.A.)
(2)	Michigan Law Review
(1)	Mind
(1)	Modern Law Review
(1)	New South Wales Police News (Australia)
(1)	Political Studies
(3)	Prison Service Journal (U.K.)
(3)	Probation (U.K.)
(2)	Psychiatry (U.S.A.)
(1)	Psychology Bulletin (U.K.)
(4)	Rassegna di Studi Penitenziari (Italy)
(3)	Revista de Estudios de Penitenciarios (Spain)
(3)	Revue Abolitionniste (Switzerland)
(5)	Revue de Droit Pénal et de Criminologie (Belgium)
(4)	Revue de Science Criminelle et de Droit Pénal Comparé (France)
(6)	Revue Internationale de Criminologie et de Police Technique (Switzerland)
(3)	Security Gazette (U.K.)
(3)	Social Forces (U.S.A.)
(2)	Social Problems (U.S.A.)
(1)	Sociometry
(1)	South-Western Journal of Anthropoloty
(1)	Soviet Studies
(1)	Tohoku Psychologica Folia
(1)	Tulane Law Review
(4)	University of Chicago Law Review
(1)	Wiener Medizinische Wochenschrift
(3)	Wisconsin Law Review (U.S.A.)
(3)	Yale Law Journal
(2)	Youth Authority Quarterly (U.S.A.)

CRIME AND DELINQUENCY ABSTRACTS

Coverage group	
(1)	Acta Criminologiae et Medicinae Legalis Japonica
(1)	Albany Law Review (U.S.A.)
(4)	American Bar Association Journal
(2)	American Criminal Law Quarterly
(3)	American Journal of Orthopsychiatry
(4)	American Journal of Psychiatry
(1)	American Scholar
(2)	American University Law Review
(1)	Annales de Vaucresson
(3)	Annales Internationales de Criminologie (France)
(2)	Annals of the American Academy of Political and Social Science
(1)	Annual Survey of American Law (U.S.A.)
(4)	Archiv für Kriminologie (West Germany)
(2)	Archivos de Criminologia, Neuropsiquiatria y Disciplinas Conexas (Quito)
(1)	Arkansas Law Review
(1)	Baylor Law Review (U.S.A.)
(2)	Bewährungshilfe (West Germany)
(2)	Boston University Law Review (U.S.A.)
(3)	British Journal of Addictions
(4)	British Journal of Criminology
(1)	Brooklyn Law Review (U.S.A.)
(2)	Bulletin de l'Administration Pénitentiaire (Belgium)
(2)	Bulletin de la Société Internationale de Défense Sociale (France)
(1)	Bulletin. New York Academy of Medicine
(1)	Bulletin. Société de Criminologie du Québec (Canada)
(1)	Cahiers JEB (Belgium)
(2)	California Law Review
(1)	California Western Law Review
(3)	California Youth Authority
(2)	Canadian Bar Journal
(2)	Canadian Bar Review
(4)	Canadian Journal of Corrections
(2)	Canadian Medical Association Journal
(3)	Children (U.S.A.)
(1)	Chitty's Law Journal
(1)	Cleveland Marshall Law Review (U.S.A.)
(1)	Challenge (U.S.A.)
(1)	College Store Journal (U.S.A.)
(1)	Colorado Law Review
(1)	Columbia Forum (U.S.A.)
(1)	Columbia Journal of Law and Social Problems (U.S.A.)
(1)	Columbia Law Review
(1)	Congressional Digest (U.S.A.)
(1)	Connecticut Law Journal (U.S.A.)
(1)	Contributions à l'Étude des Sciences de l'Homme (Canada)
(1)	Cornell Law Quarterly (U.S.A.)
(1)	Correctional Psychologist (U.S.A.)
(1)	Correctional Research Bulletin (U.S.A.)
(3)	Correctional Review (U.S.A.)
(2)	Corrective Psychiatry and Journal of Social Therapy (U.S.A.)

Coverage Group	
(5)	Crime and Delinquency (U.S.A.)
(3)	Criminal Law Bulletin (U.S.A.)
(2)	Criminal Law Quartelry (Canada)
(4)	Criminal Law Review (U.K.)
(2)	Criminalia (Mexico)
(1)	Criminologia (U.S.A.)
(1)	Defender Newsletter (U.S.A.)
(2)	Derecho Penal Contemporaneo (Mexico)
(1)	Drake Law Review (U.S.A.)
(1)	Duke Law Review (U.S.A.)
(1)	Employment Service Review (U.S.A.)
(2)	Esperienze di Rieducazione (Italy)
(1)	Études Internationales de Psycho-Sociologie Criminelle
(1)	Family Law Quraterly
(4)	FBI Law Enforcement Bulletin (U.S.A.)
(1)	Federal Corrections (Canada)
(4)	Federal Probation (U.S.A.)
(1)	Federal Rules Decisions (U.S.A.)
(2)	Fordham Law Review (U.S.A.)
(1)	George Washington Law Review
(2)	Georgetown Law Journal (U.S.A.)
(1)	Georgetown Medical Journal
(1)	Goltdammers Archiv für Strafrecht (West Germany)
(1)	Hapraklit (Israel)
(2)	Harvard Law Review (U.S.A.)
(1)	Hastings Law Journal (U.S.A.)
(3)	Howard Journal of Penology and Crime Prevention (U.K.)
(1)	Howard Law Journal (U.S.A.)
(1)	Illinois Continuing Legal Education
(1)	Indiana Law Journal
(2)	Information Review on Crime and Delinquency (U.S.A.)
(1)	Interaction (U.S.A.)
(1)	International Annals of Criminology (France)
(6)	International Criminal Police Review (France)
(2)	International Journal of Offender Therapy (U.S.A.)
(2)	International Review of Criminal Policy (U.S.A.)
(1)	Interpreter (U.S.A.)
(1)	Investigacion y Doceria (Argentina)
(1)	Iowa Law Review
(1)	Irish Jurist
(3)	Issues in Criminology (U.S.A.)
(1)	Jag Journal (U.S.A.)
(1)	Journal of Chronic Diseases (U.K.)
(3)	Journal of Correctional Education (U.S.A.)
(4)	Journal of Criminal Law, Criminology and Police Science (U.S.A.)
(1)	Journal of Family Law
(5)	Journal of Research in Crime and Delinquency (U.S.A.)
(2)	Journal of Social Issues (U.S.A.)
(1)	Journal of the American Judicature Society (U.S.A.)
(1)	Journal of the California Probation, Parole and Correction Association (U.S.A.)
(1)	Journal of the Indian Law Institute
(1)	Journal of the Missouri Bar
(1)	Journal of the State Bar of California (U.S.A.)
(1)	Journal of Urban Law
(1)	Journal on Alcohol and Alcoholism (Yugoslavia)

Coverage Group	
(1)	Juvenile Court Judges Journal (U.S.A.)
(1)	Kentucky Law Journal
(1)	Key Issues (U.S.A.)
(1)	Kriminalvarden (Sweden)
(2)	Lancet (U.K.)
(1)	Law and Contemporary Problems
(3)	Law and Order (U.S.A.)
(1)	Law in Transition Quarterly (U.S.A.)
(1)	Law Officer
(1)	Legal Aid Brief Case (U.S.A.)
(1)	Legal Aid Review (U.S.A)
(2)	Maandschrift voor het Gevangeniswezen (Netherlands)
(1)	Maine Law Review
(1)	Marquette Law Review (U.S.A.)
(5)	Medicine, Science and the Law (U.K.)
(2)	Michigan Law Review
(1)	Military Law Review (U.S.A.)
(1)	Mississippi Law Journal (U.S.A.)
(1)	Monatsschrift für deutsches Recht (West Germany)
(3)	Monatsschrift für Kriminologie und Strafrechtsreform (West Germany)
(1)	Municipal Court Review (U.S.A.)
(1)	Municipal Reference Library Notes
(1)	National Prisoner Statistics (U.S.A.)
(1)	National Sheriff (U.S.A.)
(1)	Nebraska Law Review
(3)	Nederlands Tijdschrift voor Ciminologie (Netherlands)
(1)	New York Times Magazine
(2)	New York University Law Review
(1)	Nkhwazi (Zambia)
(1)	Northwestern University Law Review (U.S.A.)
(1)	Notre Dame Lawyer
(1)	Oklahoma Law Review
(1)	Pennsylvania Association on Probation, Parole and Correction (U.S.A.)
(1)	Pennsylvania Bar Association Quarterly (U.S.A.)
(1)	Perspective (U.S.A.)
(5)	Police (U.S.A.)
(3)	Police Chief (U.S.A.)
(5)	Police Journal (U.K.)
(1)	Police Management Review (U.S.A.)
(2)	Polizei (West Germany)
(2)	Popular Government
(3)	Prison Service Journal (U.K.)
(1)	Probation and Child Care (Sri Lanka)
(1)	Prosecuter (U.S.A.)
(2)	Psychiatry (U.S.A.)
(1)	Public Administration Review (U.S.A.)
(1)	Public Interest (U.S.A.)
(3)	Quaderni di Criminologia Clinica (Italy)
(1)	Quarterly
(4)	Rassegna di Studi Penitenziari (Italy)
(1)	Readers Digest
(3)	Recueil de Droit Pénal (France)
(1)	Research Review, Department of Institutions, State of Washington (U.S.A.)
(1)	Review of the Youth Protective Services (Canada)
(2)	Revija za Kriminalistiko in Kriminologivo (Yugoslavia)
(1)	Revista Brasileira de Criminologia e Direito Penal (Brazil)

Coverage Group	
(1)	Revista de la Facultad de Derecho (Venezuela)
(3)	Revue Abolitionniste (Switzerland)
(5)	Revue de Droit Pénal et de Criminologie (Belgium)
(1)	Revue de Droit Pénal Militaire et de Droit de la Guerre (Belguim)
(4)	Revue de Science Criminelle et de Droit Penal Compare (France)
(6)	Revue Internationale de Criminologie et de Police Technique (Switzerland)
(1)	Revue des Services de Bien-être à l'Enfance et à la Jeunesse (Canada)
(2)	Revue Pénitentiaire et de Droit Pénal (France)
(1)	Rutgers Law Review (U.S.A.)
(1)	Saturday Review
(1)	Scandinavian Studies in Criminology
(2)	Schweizerische Zeitschrift für Strafrecht (Switzerland)
(1)	Scuola Positiva (Italy)
(2)	Social Casework (U.S.A.)
(2)	Social Defence (India)
(3)	Social Forces (U.S.A.)
(1)	Social Service Outlook
(2)	Southern California Law Review (U.S.A.)
(2)	Sovietskaya Yustitsiya (U.S.S.R.)
(2)	Staat und Recht (D.D.R.)
(1)	Syracuse Law Review (U.S.A.)
(1)	Temple Law Quarterly
(1)	Tennessee Law Review (U.S.A.)
(1)	Texas Law Review (U.S.A.)
(3)	Tijdschrift voor Strafrecht (Netherlands)
(2)	Trans-action (U.S.A.)
(1)	UMKC Law Review
(1)	University of California Los Angeles Law Review (U.S.A.)
(4)	University of Chicago Law Review
(2)	University of Colorado Law Review
(2)	University of Kansas Law Review (U.S.A.)
(1)	University of Pennsylvania Law Review (U.S.A.)
(1)	University of San Francisco Law Review
(1)	Valor (U.S.A.)
(1)	Valparaiso University Law Review (U.S.A.)
(2)	Vanderbilt Law Review (U.S.A.)
(1)	Villanova Law Review (U.S.A.)
(2)	Virginia Law Review (U.S.A.)
(1)	Vista Volunteer
(2)	Washburn Law Journal (U.S.A.)
(1)	Washburn Law Review
(1)	Washington and Lee Law Review (U.S.A.)
(1)	Washington Post
(1)	Welfare Reporter (U.S.A.)
(1)	Willamette Law Journal (U.S.A.)
(3)	Wisconsin Law Review (U.S.A.)
(3)	Yale Law Journal (U.S.A.)
(1)	Youth Service News
(3)	Zeitschrift für die gesamte Strafrechtswissenschaft (Berlin)
(2)	Zeitschrift für Strafvollzug (West Germany)

CRIME AND DELINQUENCY LITERATURE

Coverage Group	
(1)	Abstracts on Criminology and Penology (Netherlands)
(3)	Acta Criminologica (Canada)
(1)	Acta Sociologica (Denmark)
(3)	Addictions (Canada)
(2)	Adolescence (U.S.A.)
(4)	American Bar Association Journal (U.S.A.)
(1)	American Behavioral Scientist (U.S.A.)
(5)	American Journal of Correction (U.S.A.)
(4)	American Journal of Psychiatry (U.S.A.)
(3)	American Sociological Reveiw (U.S.A.)
(2)	American University Law Reveiw (U.S.A.)
(1)	Arizona Law Review (U.S.A.)
(2)	Australian and New Zealand Journal of Criminology (Australia)
(2)	Boston University Law Review (U.S.A.)
(4)	British Journal of Criminology
(3)	British Journal of Psychiatry
(1)	Buffalo Law Review (U.S.A.)
(1)	Bulletin of Narcotics (U.S.A.)
(2)	Bulletin of the Menninger Clinic (U.S.A.)
(1)	CPR National Journal
(2)	California Law Review (U.S.A.)
(3)	California Youth Authority (U.S.A.)
(1)	Canada's Mental Health
(2)	Child Welfare (U.S.A.)
(1)	Cleveland State Law Review (U.S.A.)
(2)	Community Schools Gazette (U.K.)
(1)	Cornell Journal of Social Relations (U.S.A.)
(3)	Criminal Law Bulletin (U.S.A.)
(4)	Criminal Law Review (U.K.)
(1)	Criminologica (U.S.A.)
(1)	Criminology - An Interdisciplinary Journal (U.S.A.)
(2)	Delinquency and Society (Israel)
(2)	Drug Dependence (U.S.A.)
(4)	Federal Probation (U.S.A.)
(2)	Fordham Law Review (U.S.A.)
(1)	Fortune (U.S.A.)
(2)	Georgetown Law Journal (U.S.A.)
(1)	Harper's Magazine (U.S.A.)
(1)	Harvard Civil Rights; Civil Liberties Law Review (U.S.A.)
(1)	Human Relations Training News (U.S.A.)
(6)	International Criminal Police Review (France)
(3)	International Journal of the Addictions (U.S.A.)
(2)	International Review of Criminal Policy (U.S.A.)
(3)	Journal of Correctional Education (U.S.A.)
(1)	Journal of Psychedelic Drugs (U.S.A.)
(5)	Journal of Research in Crime and Delinquency (U.S.A.)
(1)	Journal of Safety Research (U.S.A.)
(1)	Journal of the American Pharmaceutical Association (U.S.A.)
(1)	Judicature (U.S.A.)
(1)	Juvenile Court Journal (U.S.A.)
(1)	Kölner Zeitschrift für Soziologie und Sozialpsychologie (West Germany)
(3)	Law and Order (U.S.A.)
(1)	Massachusetts Law Quarterly (U.S.A.)

Coverage Group	
(5)	Medicine, Science and the Law (U.K.)
(1)	Minnesota Law Review (U.S.A.)
(1)	Playboy Magazine (U.S.A.)
(5)	Police (U.S.A.)
(3)	Police Chief (U.S.A.)
(5)	Police Journal (U.S.A.)
(2)	Popular Government (U.S.A.)
(2)	Prison Journal (U.S.A.)
(1)	Prospectus (U.S.A.)
(1)	Psychology Today (U.S.A.)
(5)	Revue de Droit Pénal et de Criminologie (Belgium)
(6)	Revue Internationale de Criminologie et de Police Technique (Switzerland)
(1)	Scientific American (U.S.A.)
(1)	Social Problems (U.S.A.)
(1)	Social Problems (U.S.A.)
(1)	Social Problems (U.S.A.)
(1)	Social Science Review (U.S.A.)
(2)	Social Work (U.S.A.)
(1)	Sociology and Social Research (Israel)
(2)	Sosiologia (Finland)
(2)	Southern California Law Review (U.S.A.)
(1)	Tennessee Bar Journal (U.S.A.)
(1)	Transactions of the American Philosophical Society
(1)	Trial (U.S.A.)
(4)	University of Chicago Law Review (U.S.A.)
(1)	University of Cincinnati Law Review (U.S.A.)
(2)	University of Colorado Law Review (U.S.A.)
(2)	University of Kansas Law Review (U.S.A.)
(1)	University of Toledo Law Review (U.S.A.)
(1)	Valparaiso University Law Review (U.S.A.)
(2)	Vanderbilt Law Review (U.S.A.)
(2)	Virginia Law Review (U.S.A.)
(3)	Wisconsin Law Review (U.S.A.)
(3)	Yale Law Journal (U.S.A.)
(2)	Youth Authority Quarterly (U.S.A.)

JOURNAL OF CRIMINAL LAW, CRIMINOLOGY AND POLICE SCIENCE

Coverage Group	
(4)	American Bar Association Journal
(2)	American Rifleman
(1)	Analytical Chemistry (U.S.A.)
(1)	Analytical Letters (U.S.A.)
(4)	Archiv für Kriminologie (West Germany)
(1)	Chemical and Engineering News (U.S.A.)
(3)	Criminal Law Bulletin (U.S.A.)
(3)	Criminologist (U.K.)
(1)	Current Laboratory Practice (U.S.A.)
(4)	FBI Law Enforcement Bulletin (U.S.A.)
(2)	Fingerprint and Identification Magazine (U.S.A.)
(1)	Guns (U.S.A.)
(1)	Identification (U.S.A.)
(1)	Identification News (U.S.A.)
(6)	International Criminal Police Review (France)
(1)	Journal of A.O.A.C.
(1)	Journal of Chromatographic Science (U.S.A.)
(1)	Journal of Forensic Medicine (South Africa)
(2)	Journal of Forensic Sciences (U.S.A.)
(2)	Journal of the Forensic Science Society (U.K.)
(2)	Kriminalistik (West Germany)
(3)	Law and Order (U.S.A.)
(1)	Locksmith Ledger (U.S.A.)
(5)	Medicine, Science and the Law (U.K.)
(1)	Microgram
(1)	Microscope (U.K.)
(1)	Norelco Reporter (U.S.A.)
(1)	Perkin-Elmer Instrument News (U.S.A.)
(1)	Perspective (U.S.A.)
(5)	Police Journal (U.K.)
(5)	Revue Internationale de Criminologie et de Police Technique (Switzerland)
(2)	Royal Canadian Mounted Police Gazette (Canada)

LISTE SEMESTRIELLE

(Commission Internationale de Police Criminelle)

Coverage Group	
(3)	Acta Criminologica (Canada)
(1)	Alcool ou Santé (France)
(2)	Algemeen Politieblad (Netherlands)
(5)	American Journal of Correction (U.S.A.)
(1)	Anali (Yugoslavia)
(1)	Annales de Médecine des Accidents et du Trafic (France)
(3)	Annales Internationales de Criminologie (France)
(1)	Archives Belge de Médecine Sociale et de Médecine Legale (Belgium)
(4)	Archiv für Kriminologie (West Germany)
(1)	Archivio d'Antropologia Criminale Psichiatrica e Medecina Legale (Italy)
(2)	Archivio di Penale (Italy)
(1)	Archivio di Psicologia, Neurologia et Psichiatria (Italy)
(1)	Association International de Police (France)
(2)	Australian Police Journal
(1)	Bermuda Police Magazine (Bermuda)
(1)	Boletim de Administracao Penitenciaria (Portugal)
(1)	Boletin del Instituto Interamericana del Niño (Uruguay)
(1)	Brandwacht (West Germany)
(4)	British Journal of Criminology
(1)	British Transport Police Journal
(1)	Bulletin (New Zealand)
(2)	Bulletin de l'Administration Pénitentiaire (Belgium)
(2)	Bulletin de la Société Internationale de Défense Sociale (France)
(1)	Bulletin des Stupéfiants (France)
(1)	Bulletin d'Information - UNO
(1)	Camaraderia (Argentina)
(4)	Canadian Journal of Corrections
(1)	Carabiniere (Italy)
(1)	Československa Patologie (Czechoslovakia)
(1)	Chronique de l'UNESCO
(1)	Constabulary Gazette (U.K.)
(5)	Crime and Delinquency (U.S.A.)
(1)	Criminal Bureau of Investigation Bulletin (India)
(2)	Criminalia (Mexico)
(3)	Criminologist (U.K.)
(1)	Criminology and Political Science (U.S.A.)
(2)	Derecho Penal Contemporaneo (Mexico)
(1)	Derecho (Dominica)
(1)	Deutsche Polizei (West Germany)
(1)	Der Deutsche Polizei Beamte (West Germany)
(1)	Deutsche Zeitschrift für die gesamte gerichtliche Medizin (West German
(1)	Difesa Sociali (Italy)
(1)	Estudios de Deusto (Spain)
(1)	Excerpta Criminologica (Netherlands)
~~(2)~~	~~Exekutive (Austria)~~
(4)	FBI Law Enforecment Bulletin (U.S.A.)
(1)	Finanziere (Italy)
(2)	Fingerprint and Identification Magazine (U.S.A.)
(1)	Fonctionnaire de Police (Switzerland)
(1)	Gendarmerie Nationale (France)
(1)	Gibles (France)

Coverage Group	
(2)	Giustizia Penale (Italy)
(1)	Guardia Civil (Spain)
(1)	Gabari (Ugsnda)
(1)	Hong Kong Police Magazine (Hong Kong)
(1)	Illustrierte Rundschau der Gendarmerie (Austria)
(1)	Indian Journal of Social Work (India)
(1)	Inform (U.S.A.)
(1)	Informacion Juridica (Spain)
(1)	Information Psychiatrique (France)
(1)	Informations Pénitentiares Suisses (Switzerland)
(1)	Information sur l'Alcoolisme et Autre Toxicomanies OPTAT (Canada)
(1)	Instantanes Criminologiques (France)
(1)	International and Comparative Law Quarterly (U.K.)
(1)	Internationale Polizei Association (West Germany)
(1)	International Journal of Offender Therapy (U.K.)
(1)	Iowa Sheriff (U.S.A.)
(3)	Issues in Criminology (U.S.A.)
(1)	Journal des Tribunaux (Belgium)
(1)	Journal of Correctional Work (India)
(4)	Journal of Criminal Law, Criminology and Police Science (U.S.A.)
(1)	Journal of Forensic Sciences (U.S.A.)
(5)	Journal of Research in Crime and Delinquency (U.S.A.)
(2)	Journal of the Forensic Science Society (U.K.)
(1)	Juristenzeitung (West Germany)
(2)	Kriminalistik-Zeitschrift für die gesamte kriminalistische Wissenschaft und Praxis (West Germany)
(1)	Lancashire Constabulary Gazette (U.K.)
(1)	Liaisons (France)
(1)	Los Angeles Police Beat (U.S.A.)
(2)	Medicina Legale (Italy)
(1)	Médecine Legale et Dommage Corporel (France)
(5)	Medicine, Science and the Law (London)
(2)	Medico-Legal Journal
(1)	Mental Health Digest (U.S.A.)
(1)	Michigan Police Journal (U.S.A.)
(1)	Minnesota Police Journal (U.S.A.)
(3)	Monatsschrift für Kriminologie und Strafrechtsreform (West Germany)
(3)	Nederlands Tijdschrift voor Criminologie
(2)	Neue Polizei (West Germnay)
(1)	New South Wales Police News (Australia)
(1)	New Zealand Police Journal (New Zealand)
(1)	Nkhwazi (Zambia)
(1)	Nordisk Kriminalteknisk Tidsskrift (Norway)
(2)	Nordisk Tidsskrift for Kriminalvidenskab (Denmark)
(1)	Norsk Politiblad (Norway)
(1)	Le Nouveau Droit Yougoslave (Yugoslavia)
(1)	OACI Bulletin
(1)	Öffentliche Sicherheit (Austria)
(1)	Official Magazine (U.S.A.)
(1)	Officier de Police (Belgium)
(1)	OIPC Interpol Reports to the General Assembly
(1)	On Guard-Pacific North West Law Enforcement News (U.S.A.)
(1)	Outpost (Rhodesia)
(1)	Pasicusie Luxembourgeoise (Luxembourg)
(1)	Peace Officer (U.S.A.)
(1)	Pennsylvania Chiefs of Police Association Bulletin (U.[illegible] A.)

Coverage Group	
(5)	Police (U.S.A.)
(3)	Police Chief (U.S.A.)
(1)	Police College Magazine (U.K.)
(5)	Police Journal (U.K.)
(1)	Police Life (Australia)
(1)	Police News (Australia)
(1)	Police Research Bulletin (U.K.)
(1)	Police Review (U.K.)
(1)	Policemen's Association News (U.S.A.)
(2)	Policia Espanola (Spain)
(1)	Policia Portuguesa (Portugal)
(1)	Poliisimies (Finland)
(1)	Polistidningen (Sweden)
(1)	Politie Dierenbescherming (Netherlands)
(1)	Politiembets Mennenes Blad (Norway)
(1)	Politiet (Tidsskrift for Politivaesen) (Denmark)
(2)	Polizei (West Germany)
(1)	Polizeiblatt (West Germany)
(1)	Polizei im Land Berlin (West Germany)
(1)	Polizei, Technik, Verkehr (West Germany)
(1)	Polizia Moderna (Italy)
(1)	Pravnik (Yugoslavia)
(1)	Prévention Routière dans l'Entreprise (France)
(3)	Probation (U.K.)
(1)	Probleme de Medicina Legalasi de Criminalistica (Romania)
(1)	Provost Parade (U.K.)
(3)	Quaderni di Criminologia Clinica (Italy)
(1)	Rassegna dell'Arma dei Carabinieri (Italy)
(4)	Rassegna di Studi Penitenziari (Italy)
(1)	Rassegna di Studi Psichiatrici (Italy)
(2)	Recht der Jugend (West Germany)
(3)	Recueil de Droit Penal (France)
(2)	Rééducation, Revue Français de l'Enfance
(1)	Reports of the National Research Institute of Political Science (Japan)
(1)	Revija za Kriminalistiko in Kriminologijo Zbornik (Yugoslavia)
(1)	Revista da Policia do Sao Paulo (Brazil)
(3)	Revista de Estudios de Penitenciarios (Spain)
(1)	Revista de la Guardia Civil del Peru (Peru)
(2)	Revista de la Obra de Proteccion de Minores (Spain)
(1)	Revista de la Policia Nacional (Bolivia)
(1)	Revista de Legislacao e de Jurisprudencia (Portugal)
(1)	Revista de Policia Tecnica (Peru)
(1)	Revista Illustrada (Portugal)
(1)	Revue Canadienne de Criminologie (Canada)
(5)	Revue de Droit Pénal et de Criminologie (Belgium)
(1)	Revue de Droit et de Legislation
(1)	Revue de Droit International et de Droit Comparé (Belgium)
(1)	Revue de la Gendarmerie (France)
(1)	Revue de la Police Nationale (France)
(4)	Revue de Science Criminelle et de Droit Penal Comparé (France)
(1)	La Revue du Practicien (France)
(1)	Revue Français de Droit Aérien (France)
(1)	Revue Générale d'Études de la Politique Française (France)
(1)	Revue Hellénique de Droit International (Greece)
(6)	Revue Internationale de Criminologie et de Police Technique (Switzerla
(1)	Revue Pénale Suisse (Switzerland)

Coverage Group	
(2)	Revue Penitentiaire et de Droit Pénal (France)
(1)	Rivista della Guardia di Finanza (Italy)
(1)	Rivista Penale (Italy)
(1)	Royal Barbados Police Magazine (Barbados)
(2)	Royal Canadian Mounted Police Gazette
(1)	Royal Canadian Mounted Police Quarterly (Canada)
(1)	Royal Malaysian Police Magazine (Malaya)
(1)	SARP - the South African Law Journal
(2)	Sauvegarde de l'Enfance (France)
(1)	Securité Routière (France)
(3)	Security Gazette (U.K.)
(1)	La Semaine des Hôpitaux (France)
(1)	Sheriff and Police Reporter (U.S.A.)
(1)	Signal One (U.S.A.)
(1)	Singapore Police Magazine (Singapore)
(2)	Social Defence (India)
(2)	Sovetskoe Gosudarstvo i Pravo (U.S.S.R.)
(2)	Sovietskaya Yustitsiya (U.S.S.R.)
(1)	Spring 3100 (U.S.A.)
(1)	Suomen Poliisilehti (Finland)
(1)	Svensk Polis (Sweden)
(1)	Tally Ho (U.K.)
(1)	Tidjschrift voor de Politie (Netherlands)
(3)	Tijdschrift voor Strafrecht (Netherlands)
(1)	Traffic Quarterly (U.S.A.)
(1)	Trinidad and Tobago Police Magazine
(1)	La Vie de la Douane (France)
(1)	La Vie Judiciaire (France)
(1)	Virginia Trooper (U.S.A.)
(3)	Zeitschrift für die gesamte Strafrechtswissenschaft (West Germany)
(1)	Zeitschrift für Verkehrssicherheit (Germany)

APPENDIX D

JOURNALS COVERED BY PUBLIC ADMINISTRATION SECONDARY SERVICES BY FREQUENCY OF COVERAGE

(COVERAGE GROUP 4 AND ABOVE)

COVERAGE GROUP 15

Public Administration (U.K.)

COVERAGE GROUP 13

Public Administration Review (U.S.A.)

COVERAGE GROUP 11

International Review of Administrative Sciences (Belgium)

COVERAGE GROUP 10

Administrative Science Quarterly (U.S.A.)
Economist (London)
International Social Science Journal
Journal of Politics (U.S.A.)
Political Quarterly (London)

COVERAGE GROUP 9

Administration (Dublin)
American Journal of Economics and Sociology
American Journal of Sociology
American Political Science Review
Annals of the American Academy of Social and Political Science
Canadian Public Administration
Indian Journal of Public Administration
International Affairs (U.K.)
New Society (U.S.)
Parliamentary Affairs (U.K.)
Political Studies (U.K.)
Public Administration (Australia)
Western Political Quarterly (U.S.A.)

COVERAGE GROUP 8

American Behavioral Scientist
Canadian Journal of Political Science
Economic Journal (U.K.)
Government and Opposition (U.K.)
Journal of Commonwealth Political Studies (U.K.)
Journal of Modern African Studies (U.K.)
National Civic Review (U.S.A.)
Personnel Management (U.K.)
Political Science Quarterly (U.S.A.)
Public Law (U.K.)
Social Forces (U.S.A.)
World Politics (U.S.A.)

COVERAGE GROUP 7

American Economic Review
American Sociological Review
Asian Survey (U.S.A.)
Australian Outlook
British Journal of Sociology
China Quarterly (U.K.)
Economic Development and Cultural Change (U.S.A.)
Foreign Affairs (U.S.A.)
Harvard Law Review
Human Relations (U.K.)
International Organisation (U.S.A.)
Journal of Administration Overseas (U.K.)
Journal of Development Studies (U.K.)
Journal of Social Issues (U.S.A.)
Law and Contemporary Problems (U.S.A.)
Lloyds Bank Review (U.K.)
Local Government Chronicle (U.K.)
Management Today (U.K.)
Middle East Journal (U.S.A.)
Midwest Journal of Political Science (U.S.A.)
New Zealand Journal of Public Administration
Orbis (U.S.A.)
Pacific Affairs (U.S.A.)
Philippine Journal of Public Administration
Political Science (U.S.A.)
Public Interest (U.S.A.)
Public Opinion Quarterly (U.S.A.)
Review of Politics (U.S.A.)
Sociological Review (U.K.)
Soviet Studies (U.K.)
Urban Affairs Quarterly (U.S.A.)

COVERAGE GROUP 6

African Affairs (U.K.)
American Journal of International Law
Architects Journal (U.K.)
Australian Journal of Politics and History
Australian Quarterly
Banker (U.K.)
Behavioral Science (U.S.A.)
Bulletin de l'Institut International d'Administration Publique
California Management Review (U.S.A.)
Comparative Studies in Society and History (U.S.A.)
Daedalus (U.S.A.)
Geographical Journal (U.K.)
Harvard Business Review (U.S.A.)
Industrial and Labor Relations Review (U.S.A.)
International Labor Review(U.S.A.)
Journal of Asian Studies (U.S.A.)
Journal of Comparative Administration (U.S.A.)
Journal of Conflict Resolution (U.S.A.)
Journal of Contemporary History (U.K.)
Journal of Southeast Asian Studies (Singapore)
Local Government Finance (U.K.)
New Left Review (U.S.A.)
New Statesman (U.K.)

COVERAGE GROUP 6 (CONT.)

O.E.C.D. Observer (France)
O & M Bulletin (U.K.)
Political Scientist (India)
Politics (Autralia)
Public Policy (U.S.A)
Res Publica (Belgium)
Revue Administrative (France)
Revue de Droit Public et de la Science Politique (France)
Revue Juridique et Politique (France)
Social Research (U.S.A.)
Socio-Economic Planning Sciences (U.S.A.)
Sociology and Social Research (U.S.A.)
Town and Country Planning (U.K.)
Urban Studies (U.K.)
World Today (U.K.)
Yale Review (U.S.A.)

COVERAGE GROUP 5

Administration (Nigeria)
Africa (U.K.)
Africa Quarterly (India)
Africa Report (U.S.A.)
Analyse et Prévision (France)
Architectural Review (U.K.)
Business Week (U.S.A.)
Civilisations (Belgium)
Columbia Law Review
Comparative Political Studies (U.S.A.)
Comparative Politics (U.S.A.)
Contemporary Japan (Japan)
Cooperation and Conflict (Norway)
Economic and Political Weekly (India)
Economica (U.K.)
Encounter (U.K.)
Foro Internacional (Mexico)
Human Organisation (U.S.A.)
IMF Staff Papers (U.S.A.)
Indian Journal of Political Science
Industrial Relations (U.S.A.)
Inter-American Economic Affairs
International Conciliation (U.S.A.)
International Journal of Comparative Sociology (India)
Investors Chronicle and Stock Exchange Gazette (U.K.)
Japan Quarterly (Japan)
Journal of Common Market Studies (U.K.)
Journal of Constitutional and Parliamentary Studies (India)
Journal of Management Studies (U.K.)
Journal of Political Economy (U.S.A.)
Journal of the Royal Statistical Society (U.K.)
Law and Society Review (U.S.A.)
Listener (U.K.)
Middle Eastern Studies (U.K.)
Modern Law Review (U.K.)
Municipal Finance (U.S.A.)
Pacific Sociological Review (U.S.A.)

COVERAGE GROUP 5 (CONT.)

Penant (France)
Personnel Practice Bulletin (Australia)
Phylon (U.S.A.)
Population Studies (U.K.)
Problems of Communism (U.S.A.)
Proceedings of Political Science (U.S.A.)
Public Personnel Review (U.S.A.)
Queens Quarterly (Canada)
Race (U.K.)
Revue de la Defense Nationale (France)
Revue Francaise de Science Politique (France)
Revue Internationale de Droit Compare (France)
Rivista Trimestrale de Diritto Pubblico (Italy)
Social Problems (U.S.A.)
Social Science (U.S.A.)
Social Science Quarterly (U.S.A.)
Social Science Review (U.S.A.)
State Government (U.S.A.)
Survey (U.K.)
Three Banks Review (U.K.)
Times (U.K.)
Town Planning Review (U.K.)
Verwaltung (West Germany)
Work Study and Management Services (U.K.)

COVERAGE GROUP 4

Acta Juridica Academiae Scientiarum Hungaricae
Acta Politica (Netherlands)
Afrique et Asie (France)
American Latina (Brazil)
American Anthropologist (U.S.A.)
American Bar Association Journal (U.S.A.)
American Federationist
Archiv des öffentlichen Rechts (West Germany)
Archiv für Kommunalwissenschaft (West Germany)
Archiv des Volkerrechts (West Germany)
Atlantic Community Quarterly (U.S.A.)
Australian and New Zealand Journal of Sociology (Australia)
Barclays Bank Review (U.K.)
British Hospital Journal and Social Service Review
British Journal of Industrial Relations
Building (U.K.)
Business Management (U.K.)
Cahiers d'Études Africains (France)
Cahiers Internationaux de Sociologie (France)
Canadian Journal of Economics
Case Conference
Center Magazine
Co-existence (U.S.A.)
Commentary (U.S.A.)
Communità Internazionale (Italy)
Contemporary Review (U.K.)
Critique (France)
Cuadernos Americanos (Mexico)
Current History (U.S.A.)
Current Notes on International Affairs (Australia)

COVERAGE GROUP 4 (CONT.)

Dados (Brazil)
Daily Telegraph (U.K.)
Desarollo Administrativo (Ecuador)
Design (U.K.)
Economic Record (Australia)
Ekistics (Greece)
Engineer (U.K.)
Engineering (U.K.)
Ethics (U.S.A.)
Ethnology (U.S.A.)
Études (France)
Études Congolaises (Congo)
Europa Archiv (West German
Federal Accountant (U.S.A)
Fortune (U.S.A.)
Futures (U.K.)
Gazette (Netherlands)
Gegenwartskunde (West Germany)
Geographical Magazine (U.K.)
Good Government (U.S.A.)
Guardian (U.K.)
Housing (U.K.)
Indian Political Science Review
Industry Week (U.K.)
International Politikk (Norway)
International and Comparative Law Quarterly (U.K.)
International Journal (Canada)
International Relations (U.K.)
International Review of Social History (Netherlands)
International Studies (India)
International Studies Quarterly (U.S.A.)
IPA Review (Australia)
IULA Newsletter (Netherlands)
Jahrbuch des öffentliches Rechts der Gegenwart (West Germany)
Jewish Journal of Sociology (U.K.)
Jewish Social Studies (U.S.A.)
Journalism Quarterly (U.S.A.)

Journal of Accountancy (U.S.A.)
Journal of African History (U.K.)
Journal of Agricultural Economics (U.K.)
Journal of Asian and African Studies (Canada)
Journal of Developing Areas (U.S.A.)
Journal of Industrial Economics (U.K)
Journal of Inter-American Studies (U.S.A.)
Journal of International Affairs (U.S.A.)
Journal of Peace Research (Norway)
Journal of Social Psychology (U.S.A.)
Journal of Systems Management (U.S.A.)
Journal of the History of Ideas (U.S.A.)
Journal of the Town Planning Institute (U.K.)
Journal of Transport Economics and Policy (U.K.)
Kyklos (Switzerland)
Land Economics (U.S.A.)
Management Service (U.S.A.)
Manchester School of Economic and Social Studies (U.K.)
Midland Bank Review (U.K.)

COVERAGE GROUP 4 (CONT.)

Midwest Review of Public Administration (U.S.A.)
Minerva (U.K.)
Modern Age (U.S.A.)
Modern Asian Studies (U.K.)
Modern Review (India)
Monthly Labor Review (U.S.A.)
Municipal and Public Services Journal (U.K.)
Municipal Engineering (U.K.)
Municipal Review (U.K.)
National Westminster Bank Quarterly Review (U.K)
Nations Cities (U.S.A.)
New Commonwealth (U.K.)
Nordisk Administrativt Tidsskrift (Denmark)
Office (U.S.A.)
Official Architecture and Planning (U.K.)
Orient (France)
Ost-Europa (West Germany)
Pakistan Horizon (U.K.)
Panstvo i Prawo (Poland)
Parliamentarian (U.K.)
Petroleum Press Service (U.K.)
Politicka Misao (Yugoslavia)
Politico (Italy)
Politikka (Finland)
Politique Étrangère (France)
Politische Studien (West Germany)
Politische Vierteljahresschrift (West Germany)
Polity (U.S.A.)
Preuves (France)
Public Welfare (U.S.A.)
Quarterly Journal of the Local Self Government Institute (India)
Regional Studies (U.S.A.)
Review of Economics and Statistics (U.S.A.)
Revista Brasileira de Estudos Politicos (Brazil)
Revista de Administracion Publica (Argentina)
Revista de Ciencias Sociales (Puerto Rico)
Revista de Estudios de la Vida Local (Spain)
Revista de Estudios Politicos (Spain)
Revista Latinoamericana de Sociologia (Argentina)
Revista Mexicana de Sociologia
Revue Algérienne des Sciences Juridiques, Politiques...(Algeria)
Revue Égyptienne de Droit International (Egypt)
Revue Française d'Études Politiques Africaines
Revista di Studi Politici (Italy)
Revista Internazionale di Scienze Sociale (Italy)
Rocky Mountain Social Sciences Journal (U.S.A.)
Round Table (U.S.A.)
RIBA Journal
Rural Sociology (U.S.A.)
Scandinavian Political Studies (Finland)
Schmollers Jahrbuch
Schweizer Monatschefte
Science and Society (U.S.A.)
Scottish Journal of Political Economy
Social and Economic Administration (U.K.)
Social Science Information (Netherlands)
Socijalizam (Yugoslavia)

COVERAGE GROUP 4 (CONT.)

Sociological Quarterly (U.S.A.)
Sovetskoe Gosudarstva i Pravo (U.S.S.R.)
Staat (West Germany)
Statsvetenskaplig Tidskrift (Sweden)
Storia e Politica (Italy)
Stratégie (France)
Studies in Comparative Local Government (Netherlands)
Studies in Soviet Thought (Netherlands)
Surveyor - Local Government Technology (U.K.)
Tiers-Monde (France)
Town Planning Institute Journal (U.K.)
Traffic Engineering and Control (U.K.)
Traffic Quarterly (U.S.A.)
Twentieth Century (U.K.)
United Asia (India)
Zeitschrift für ausländisches öffentliches Recht und Volkerrecht (West Germany)
Zeitschrift für Politik (West Germany)

APPENDIX E1

ARTICLES SAMPLED FROM PRIMARY JOURNALS IN CRIMINOLOGY

Acta Criminologica
Vol 3. January/February 1970 (all)

FRECHETTE, M. Le criminel et l'autre analyse des relations interpersonelles.

LE BLANC, M. Inventaire de la recherche criminologique de Quebec 1949-69.

NORMANDEAU, A., & SZABO, D. Synthèse des travaux 1er symposium internationale de recherche en criminologie comparée.

SHOHAM, SHLOMA, RAHAW, GIORA, & KNEIZLER, A. The measurement of movements on the conformity-deviance continuum as an auxiliary tool for action research.

British Journal of Criminology
Vol 3. 1970

no. 1 January

NEWMAN, G. Normality and criminality revisited.

ROSE, G., & HAMILTON, R.A. Effects of a juvenile liaison scheme.

no. 2 April

BUIKHUISEN, W., & JONGMAN, R.W. A legalistic classification of juvenile delinquency.

CHOPPEN, V. Origin of the philosophy of detention centres.

no. 3 July

BRUCE, N. Delinquent and non-delinquent reaction to parental deprivation.

YANAGIMOTO, M. Some features of the Japanese prison system.

no. 4 October

CARSON, W.G. White collar crime and the enforcement of factory legislation.

ROSE, G. Penal reform as history.

Crime and Delinquency
Vol 16. 1970

no. 1 January

CHAPEL, J.L., & TAYLOR, D.W. Drugs for kicks.

RUBIN, S. Illusions of treatment in sentences and civil commitments.

no. 2 April

BRENNAN, W.C., & WARE, J.H. The probation officer's perception of the Attorney's role in the juvenile court.

CREASEY, D.R. Organised crime and inner-city youth.

no. 3 July

GRYGIER, T., NEASE, B., & ANDERSON, C.S. An exploratory study of half-way homes.

MENNINGER, W.W. Violence and the urban crisis.

RUBIN, T. Police interrogation of juveniles.

no. 4 October

ECHOLS, A.E. Deadline, vengeance and tribute - a prescription for black juvenile delinquency.

MANN, P. Police responses to a course in psychology.

WILLIAMS, V.L. Designing games to teach correctional skills.

Journal of Criminal Law, Criminology and Police Science
Vol 16 1970.

no. 1

NEWMAN, B., SULLIVAN, V.T., & DIHRBERG, A. Thin layer chromatography of LSD, DMIT, STP and LA.

REICHSTEIN, K. The criminal law practitioners dilemma. What should the lawyer do when his client intends to testify falsely.

WALDO, G.P. The 'criminality level' of incarcerated murderers and non-murderers.

no. 2

DAMASKA, M.R. Comparative reflections on reading the amended Yugoslav code: interrogation of defendants in Yugoslav criminal procedure.

KINLAND, P.B. The new American university.

MATTHEWS, A.R. Observation on police policy and procedures for emergency detection of the mentally ill.

NORMANDEAU, A. Pioneers in criminology: Charles Lucas - opponent of capital punishment.

no. 8 May 1971

CANEPA, G. L'épistémologie et la recherche criminologique.

no. 9 June 1971

TROUSSE, P.E., & BERNARD, F. Reflexions sur un colloque.

no. 10 July 1971

MARCHAL, A. Outrages aux moeurs par écrits, images ou objets.

Revue Internationale de Criminologie et de Police Technique
Vol 24. 1970

no. 1 January-March

BEGUIN, G. Les réalisations et les projets de l'Institut suisse de police de Neuchâtel.

SEVERY, J. Fen et flamme.

SZABO, D. Néotenie et misonéisme - essai d'interprétation de la cure des jeunes.

no. 2 April-June

CECCALDI, P.F., CLEMENT, J.F., & LE PAREUX, A. Recherche expérimentales et statistiques sue la détermination (par replique de foulage) de l'ordre d'apparition de deux textes.

JACCARD, P. La culpabilité et la peine.

no. 3 July-September

BERNHEIM, J. Le secret médical.

FOEX, R. Les rapport du détention du secret avec la justice.

VERSELE, S-C. Quelques observations de sociologie judiciaire sur les magistrats de la jeunesse.

no. 4 October-December

BABEL, H. Criminologie, ethique et théologie.

MORETTI, C. Année 1971: Le monde face au crime.

no. 3

BERG, S.O. Sherlock Holmes: father of scientific crime detection.

FLAUM, J.M., & THOMPSON, J.R. The case of the disruptive defendant: Illinois v. Allen.

KOGON, B., & LOUGHEY, D.L. Sealing and expungement of criminal records - the big lie.

no. 4

BEDAU, H.A. Deterrence and the death penalty: a reconsideration.

LANKES, G. How should we educate the police.

WALTZ, J.R. Supreme Court Review: forward or (backward?) the year after

WILSON, P.R., & CHAPPELL, D. The effects of police withdrawal from traffic control: a comparative study.

Revue de Droit Pénal et de Criminologie
Vol 51. 1970-71

no. 1 October 1970

LEGROS, R. Considération sur les motifs.

no. 2 November 1970

DUMENT, A. & MEULEBROEKE, O. VAN DE. Le controle juridictionnel de la détention préventive.

no. 3 December 1970

CONSTANT, J. Propos sur la motivation des jugements et arrêts en matière repressive.

nos 4-5 January-February 1971

COUVRAT, P. Le controle judicaire.

PRADEL, J. Une nouvelle mésure du sureté a la disposition du juge d'instruction: le controle judiciaire.

no. 6 March 1971

SCREVENS, R. L'indemnisation de la détention préventive non justifié.

no.7 April 1971

TROUSSE, P.E. Aspects comparés de la politique criminelle en Allemagne fédérale et en Belgique.

APPENDIX E2

ARTICLES SAMPLED FROM PRIMARY JOURNALS IN PUBLIC ADMINISTRATION

Public Administration Vol. 48 1970

CAVENAGH, W.E., & NEWTON, D. Membership of two administrative tribunals.

CHAPMAN, R.A. Official liberality.

DRAKE, C.D. Ombudsman for local government,

HUET, P. Rationalization of budget choices in France.

MACLEOD, R.M., & ANDREWS, E.K. Origins of the DSIR.

WILDING, R.W.L. Post-Fulton programme: strategy and tactics.

International Review of Administrative Sciences Vol. 36 1970

ANKOMAN, K. Reflections on administrative reform in Ghana.

BHAMBHRI, C.P. Training programme for the Indian administrative service.

EMMERICH, H. Administrative legacy of Franklin D Roosevelt.

FRANCOIS, A. L'informatique et l'administration.

GOW, J.I. Modernisation de la fonction publique de Quebec.

LA PORTE, R. Administrative, political and social constraints on economic development in Ceylon.

MODEEN, T. Submission and appeal: two means of state supervision of the communes in Finland and Sweden.

Public Administration Review Vol. 30 1970

COHEN, H. The constraints in governing Megacentropolis; _ed._ H. Reihing (Symposium).

DELGUIDICE, D. The city as a full partner.

GOULD, D.J., & KELMAN, H.C. Horizons of research on the International Civil Service, _in_ Towards an international civil service, _ed_ S. Mailick (Symposium).

HEADY, F. Role of the president today, _in_ The American university: a public administration perspective, _ed_ C.J. Wingfield (Symposium).

HENNING, D.H. Natural resources administration and the public interest.

KEPPEL, F. New relationships between education and industry, *in* Education and public policy, *ed.* J. Culberton (Symposium).

RICHTER, A. Existentialist executive.

SCOTT, M. Federal-state partnership in the arts, *in* Government and the arts, *ed.* E. Scott (Symposium).

SMALLWOOD, F. Reshaping local government abroad: Anglo-Canadian experiments.

WALKER, D.B. Relevant research required, *in* Needs and prospects for research in intergovernmental relations (Symposium).

WALTON, J. Dissimilarity of educational administration.

WARREN, R. Federal-local development planning: scale effects in representation and policy making.

WINGFIELD, C.J. Campus conflict and institutional maintenance, *in* The American university: a public administration perspective, *ed.* C.J. Wingfield (Symposium).

WINSLOW, A. Functions of an international secretariat, *in* Towards an international civil service, *ed.* S. Mailick.

WYNER, A.J. Staffing the governor's office, *in* American governor in the 1970s, *ed.* C. Ransome (Symposium).

APPENDIX F1

RANK LIST OF JOURNALS CITED BY SOURCE JOURNALS IN CRIMINOLOGY

(cited 5 times or more: including self-citation)

Number of citations	
103	American Sociological Review
79	British Journal of Psychiatry
64	American Journal of Sociology
48	Archives of General Psychiatry
46	American Journal of Psychiatry
34	Criminal Law Review
33	Psychiatry
29	American Journal of Orthopsychiatry
29	Journal of Criminal Law, Criminology and Police Science
27	British Journal of Criminology
24	Lancet
23	Social Forces
22	British Medical Journal
22	Journal of Abnormal and Social Psychology
20	Journal of Nervous and Mental Diseases
19	Journal of the American Medical Association
17	Quarterly Journal of Studies in Alcohol
16	Criminal Appeal Reports
14	Public Opinion Quarterly
13	All England Law Reports
13	Harvard Law Review
13	Psychiatric Quarterly
13	Science
12	American Anthropologist
12	Journal of Clinical Psychology
12	Journal of Psychology
12	Social Work
11	Child Development
11	Human Relations
11	Journal of Consulting Psychology
11	Kriminalistik

Number of citations	
11	Social Problems
11	Yale Law Journal
10	International Journal of Group Psychotherapy
10	Nature
10	Policia Española
9	Electro-encephalography and Clinical Neurophysiology
9	Revue de Droit Pénal et de Criminologie
8	Administrative Science Quarterly
8	British Journal of Medical Psychology
8	Journal of the American Statsitical Association
8	Journal of Marriage and Family Living
8	Psychoanalytic Quarterly
8	Psychosomatic Medicine
7	British Journal of Psychology
7	Journal of Child Psychology and Child Psychiatry
7	Journal of Psychosomatic Research
7	Journal of Social Issues
7	Mental Hygiene
7	Psychoanalytic Study of the Child
7	Psychological Bulletin
6	Acta Psychiatrica Scandinavica
6	American Journal of Psychotherapy
6	American Psychologist
6	Annals of the American Academy of Political and Social Science
6	Behavioral Research and Therapy
6	Behavioral Science
6	British Journal of Social and Clinical Psychology
6	Crime and Delinquency
6	Federal Probation
6	Journal of Personality and Social Psychology
6	NJW - Fundhefte
6	Revue de Science Criminelle et de Droit Penal Comparé
6	Social Casework
6	Social Service Review
6	University of Pennsylvania Law Review
5	American Journal of Public Health
5	Bulletin of the Menninger Clinic
5	Bulletin on Narcotics
5	Endocrinology
5	Journal of Clinical Psychopathology
5	Law and Contemporary Problems
5	Revue Internationale de Criminologie et de Police Technique
5	Scientific American
5	Texas Law Review

APPENDIX F2

JOURNALS CITED TWICE OR MORE BY 1970 SOURCE JOURNALS* IN CRIMINOLOGY (Excluding British Medical Journal)

AAPCC (1)
ABC Weekly (Madrid) (1)
Acta Criminologica (1)
Acta Medica Scandinavica (2)
Acta Morphologica (1)
Acta Paediatrica (1)
Acta Pathologica et Microbiologica (2)
Acta Psychiatrica et Neurologica Scandinavica (2)
Acta Psychiatrica Scandinavica (6)
Acta Psychologica (2)
Administrative Science Quarterly (8)
Adolescence (2)
Aerospace Medicine (1)
All England Law Reports (13)
Allgemeine Psychopathologie (1)
Allgemeine Zeitschrift für Psychiatrie (1)
American Anthropologist (12)
American Bar Association Journal (1)
American Criminal Law Quarterly (1)
American Journal of Clinical Pathology (1)
American Journal of Correction (1)
American Journal of Diseases of Childhood (1)
American Journal of Medicine (2)
American Journal of Orthopsychiatry (29)
American Journal of Psychiatry (46)
American Journal of Psychology (1)
American Journal of Psychotherapy (6)
American Journal of Public Health and the Nation's Health (5)
American Journal of Roentgenology (1)
American Journal of Sociology (64)
American Law Review (1)
American Law Teacher's Association Newsletter (2)
American Political Science Reveiw (4)
American Psychologist (6)
American Review of Medicine (1)
American Scientist (1)
American Sociological Review (103)
American Sociologist (1)
Analytical Chemistry (1)
Anesthesia and Analgesia Current Researches (1)
Angle Orthodontist (1)
Annales de l'Institut Pasteur (1)
Annales Internationales de Criminologie (2)
Annales de Médecine Légale (3)
Annales Médico-Psychologiques (2)
Annals Journal of Natural History (2)
Annals of Allergy (2)
Annals of the American Academy of Political and Social Science (6)

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* See DISISS Report A3 for full details.

Annals of Endocrinology (1)
Annals of Eugenics (Human Genetics) (4)
Annals of Internal Medicine (1)
Annals of New York Academy of Science (2)
Archives of General Psychiatry (48)
Archives of Pathology (1)
Archives of Pediatrics (1)
Archives of Toxicology (1)
Archiv für Kriminologie (1)
Archiv für gewerbe Pathologie und Gewerbehygiene (1)
Archiv für Psychiatrie und Nervenkrankheiten (4)
Archivio di Psicologia, Neurologia e Psichiatria (2)
Archivos de Neurobiologia (1)
Arena (1)
Atlantic Monthly (1)
Atti Preliminaire (1)
Australia and New Zealand Journal of Criminology (2)
Australian and New Zealand Journal of Psychiatry (2)
Author (1)

Behavioral Research and Therapy (6)
Behavioral Science (6)
Berliner Statistik (1)
Biochemical Journal (3)
Biometrics (3)
Biometrika (1)
Bookman (1)
Brain (2)
British Heart Journal (1)
British Journal of Addiction (3)
British Journal of Criminology (27)
British Journal of Hospital Medicine (1)
British Journal of Medical Psychology (8)
British Journal of Preventive and Social Medicine (2)
British Journal of Protective Psychology and Personality (1)
British Journal of Psychiatry (79)
British Journal of Psychology (7)
British Journal of Social and Clinical Psychology (6)
British Journal of Social Psychiatry (2)
British Journal of Sociology (4)
British Journal of Statistical Psychology (2)
British Medical Journal (22)
Bulletin of the British Psychological Society (2)
Bulletin Criminale (1)
Bulletin of the John Hopkins Hospital (1)
Bulletin Los Angeles Neurology (1)
Bulletin of the Menninger Clinic (5)
Bulletin on Narcotics (5)
Bulletin of the National Association of Secondary School Principals (1)

Bulletin of the World Federation for Mental Health (1)

California Law Review (1)
California Medicine (1)
Cambridge Law Journal (2)

Canadian Journal of Corrections (1)
Canadian Psychiatric Association Journal (1)
Case Conference (1)
Center Diary (1)
Child Development (11)
Child Welfare (3)
Chroniques Internationales de Police (1)
Civil Engineering (1)
Civitate Dei (1)
Cleveland-Marshall Law Review (1)
Clinical Pediatrics (1)
Comprehensive Psychiatry (4)
Confinia Neurologica (1)
Corrective Psychiatry and Journal of Social Therapy (1)
Corte Costituzionale (1)
Cortex (1)
Costituzioni Italiane (1)
Crime and Delinquency (6)
Criminal Appeal Reports (16)
Criminal Interrogations and Confessions (1)
Criminal Law Bulletin (1)
Criminal Law Review (London) (34)
Criminology (1)
Criminology in Action (1)
Cry California (1)
Cujas (3)
Current Therapeutic (1)

Der Staat der Griechen (1)
Deutsche Rentiennersicherung (1)
Deutsche Zeitschrift für die gesamte gerichtliche Medizin (3)
Diseases of the Chest (1)
Diseases of the Nervous System (2)
Dominion Law Reports (1)

Education and Psychological Measurements (1)
Electro-encephalography and Clinical Neurophysiology (9)
Encounter (1)
Endocrinology (5)
Estratto del Bollettino Psicologica Applicata (1)
Eugenics Quarterly (1)
Exceptional Children (1)
Excerpta Criminologica (1)
Excerpta Medica (1)
Experientia (1)
Experimental Cell Research (1)

Family Process (2)
Faz (1)
Federal Probation (6)
Finger Print and Identification Magazine (1)
Forces Aériennes Françaises (1)

Georgetown Law Journal (1)
George Washington Law Review (1)
Geographical Review (1)

Gifted Child Quarterly (1)
Group Psychotherapy (1)

Harvard Business Review (2)
Harvard Law Review (13)
Hastings Law Journal (2)
Helvetica Paediatrica Acta (1)
House and Garden (1)
Human Biology (4)
Human Developments (Vita Humana) (1)
Human Relations (11)

Illegittimita Costituzionale delle Leggi (1)
Illinois Bar Journal (1)
Illinois Medical Journal (2)
Indian Journal of Medical Research (1)
Indian Journal of Psychiatry (4)
Indice Penale (2)
Institute for Research into Behavioral, Economic and Management Science. Papers
Inter-American Law Review (1)
Internationale Zeitschrift für angewandte Physiologie (1)
International Journal of the Addictions (2)
International Journal of Group Psychotherapy (10)
International Journal of Psychiatry (2)
International Journal of Psycho-analysis (11)
International Journal of Psychotherapy (1)
International Journal of Social Psychiatry (3)
International Journal of Psychiatry Clinics (1)
Iowa Law Review (1)
Issues in Criminology (1)

JCP (2)
Journal of Abnormal and Social Psychology (22)
Journal of the American Medical Association (19)
Journal of the American Statistical Association (8)
Journal of Applied Physiology (2)
Journal of Child Psychology and Psychiatry (7)
Journal of Chronic Diseases (2)
Journal of Clinical Endocrinology (2)
Journal of Clinical Psychology (12)
Journal of Clinical Psychopathology (5)
Journal of Conflict Resolution (3)
Journal of Consulting Psychology (11)
Journal of Counselling Psychology (1)
Journal of Criminal Law (England) (1)
Journal of Criminal Law, Criminology and Police Science (US) (29)
Journal of Ecology (1)
Journal of Educational Psychology (1)
Journal of Educational Research (1)
Journal of Educational Sociology (4)
Journal of Endocrinology (2)
Journal of Experimental Child Psychology (2)
Journal of Experimental Psychology (1)
Journal of Forensic Science (2)
Journal of the Formosan Medical Association (1)
Journal of Genetical Psychology (3)

Journal of Health and Human Behavior (3)
Journal of Humanistic Psychology (1)
Journal of the Irish Medical Association (1)
Journal of Jewish Communal Service (2)
Journal of Laboratory and Clinical Medicine (1)
Journal of Law and Economics (2)
Journal of Marriage and Family Living (8)
Journal of Mental Deficiency Research (1)
Journal of the National Medical Association (3)
Journal of Negro Education (1)
Journal of Nervous and Mental Diseases (20)
Journal of Neurology, Neurosurgery and Psychiatry (4)
Journal of Neuropsychiatry (1)
Journal of New Drugs (1)
Journal of Personality (4)
Journal of Personality and Social Psychology (6)
Journal of Pharmacology and Experimental Therapeutics (2)
Journal of Physiology (2)
Journal of Political Economy (1)
Journal of Politics (2)
Journal of Psychiatric Research (2)
Journal of Psychology (12)
Journal of Psychosomatic Research (7)
Journal of Research in Crime and Delinquency (4)
Journal of the Royal Anthropological Institute (1)
Journal of the Royal Statistical Society (1)
Journal of the Science of Food and Agriculture (1)
Journal for the Scientific Study of Religion (2)
Journal for Sexual Research (1)
Journal for the Slow Learning Child (1)
Journal of Social Issues (7)
Journal of Social Problems (1)
Journal of Social Psychology (4)
Journal of Urban Law (1)
Journal of Urology and Nephrology (1)

Juridical Review (3)
Jus (1)

Kriminalistik (11)
Kriminaltaktik (1)

Lancet (24)
Land Economics (3)
Lavoro Neuropsichiatrico (1)
Law and Contemporary Problems (5)
Law Enforcement Science and Technology (2)
Law Quarterly Review (3)
Law Society Gazette (1)
Legal and Criminal Psychology (1)
Libre Service Actualités (3)

Mainzer Allgemeine Zeitung (1)
Maryland Law Review (2)
Medical Journal of Australia (4)

Medical Officer (2)
Medicine, Science and the Law (3)
Medico-Legal Journal (2)
Medizinische Psychologie (1)
Mental Hospitals (3)
Mental Hygiene (7)
Merrill-Palmer Quarterly (1)
Michigan Law Review (1)
Military Surgeon (1)
Minnesota Law Review (2)
Minnesota Medicine (1)
Monatschrift für Kriminologie und Strafrechtsreform (1)
Monatskurse für die ärztliche Fortbildung (1)
Mundo Hospitalario (1)

NJW - **Fundhefte** (6)
Naciones U.B. (1)
National Geographic Magazine (1)
Natural Law Reader (1)
Nature (London) (10)
Nebraska State Medical Journal (1)
Nederlands Tijdschrift voor de Psychologie (1)
Nervenarzt (1)
Nervous Child (2)
Neuropsychologia (1)
New England Journal of Medicine (3)
New Generation (2)
New Law Journal (2)
New Republic (4)
New Scientist (1)
New Society (4)
New Student (London) (1)
Newsweek (1)
New York Review of Books (1)
New York State Journal of Medicine (1)
New York University Law Review (2)
New Zealand Medical Journal (1)
Nordisk Medicin (1)
North Carolina Law Review (1)
Nursing Outlook (1)
Nursing Times (1)
Nutrition Today (1)

Orbé Médico (1)
Oregon Law Reivew (1)
Organizational Behavior (1)
Oxford Medical School Gazette (1)

Pacific Sociological Review (2)
Parade (1)
Pharmazeutische Zeitung (1)
Pediatrics (1)
Perceptual and Motor Skills (2)
Personnel and Guidance Journal (2)
Pharmacological Reviews (1)
Philadelphia Magazine (1)

Phylon (4)
Police Chief (1)
Police Journal (1)
Policia Española (10)
Polizei (3)
Postgraduate Medical Journal (2)
Praxis (1)
Prison Service Journal (1)
Prisons et Prisonniers (1)
Proceedings of the Royal Society of Medicine (3)
Psychiatria et Neurologia (1)
Psychiatric Quarterly (13)
Psychiatry (33)
Psychoanalytic Quarterly (8)
Psychoanalytic Review (4)
Psychoanalytic Study of the Child (7)
Psychologica Belgica (1)
Psychological Bulletin (7)
Psychological Clinic (1)
Psychological Issues (2)
Psychological Monographs (3)
Psychological Record (1)
Psychological Report (1)
Psychological Review (3)
Psychologische Rundschau (1)
Psychology Today (3)
Psychometrika (3)
Psychophysiology (1)
Psychosomatic Medicine (8)
Psychosomatics (1)
Psychotherapy Theory: Research and Practice (4)
Public Administration Review (2)
Public Interest (4)
Public Opinion Quarterly (14)

Quarterly Journal of Experimental Psychology (1)
Quarterly Journal of Medicine (1)
Quarterly Journal of Studies on Alcohol (17)

Rehabilitation Record (1)
Religion and Health (1)
Reports on the Progress of Applied Chemistry (1)
Revista de la Escuela de Estudios Penitenciarios (1)
Revista de la Facultad de Derecho de la Universidad de Madrid (1)
Revista General de Legislacion y Jurisprudencia (1)
Revista Ibis (1)
Revue Bimestrielle de la Direction Générale de la Sureté Nationale (1)
Revue de Droit Pénal et de Criminologie (9)
Revue Française de Sociologie (1)
Revue Générale de l'Air et de l'Espace (1)
Revue Internationale de Criminologie et de Police Technique (5)
Revista Internacional de Policia Criminal (4)
Revue Pénale Suisse (3)
Revue Pénitentiaire Suisse (1)
Revue Pénitentiaire et de Droit Pénal (1)
Revue de Science Criminelle et de Droit Pénal Comparé (6)

Rutgers Law Review (1)

Saturday Review (2)
Schweizerisches medizinische Wochenschrift (2)
Science (13)
Scientific American (5)
Seleccion en Español de Excerpta Medica (1)
Shokvhin Eisigaku Zasshi (1)
Smith College Studies in Social Work (4)
Social Casework (6)
Social Forces (23)
Social Problems (11)
Social Psychiatry (2)
Social Science Quarterly (2)
Social Service Review (6)
Social Work (12)
Sociological Inquiry (1)
Sociological Review (1)
Sociology and Social Research (4)
Sociology Today (1)
Solicitor's Journal (2)
Sovetskaya Yustitsiya (2)
Spiegel-Bericht (1)
Stanford Law Review (1)
Sud-ouest (1)
Supreme Court Review (1)
Surgery, Gynecology, Obstetrics (1)
Survey Minmonthly (1)
SW Law Journal (1)

Tennessee Law Review (1)
Texas Bar Journal (1)
Texas Law Review (5)
Tidsskrift for den Norske Laegeforening (1)
Trans-Action (2)
Transcultural Psychiatric Research Review (1)
Tribuma Medica (3)
Tri Quarterly (1)

Uniform Parole Reports Newsletter (1)
Union Médicale de Canada (1)
United Nations - Boletin Estupefacientes (3)
University of California at L.A. Law Review (1)
University of Chicago Law Review (4)
University Pennsylvania Law Review (6)
Urban Review (1)

Villanova Law Review (1)

Washburn Law Review (1)
Washington Law Quarterly (1)
West Indian Medical Journal (1)
William and Mary Law Review (1)
Wisconsin Law Review (3)
World Federation for Mental Health Bulletin (2)
World Politics (1)

Yale Law Journal (11)

Zeitschrift für Pråventivmedizin (1)
Zeitschrift für Psychologie (1)
Zur Stelling des Beschuldigten im Strafverfahren (1)

19 more